

STUDY ON TRADITIONAL MEDICINAL HEALING PRACTICES AMONG SELECTED SCHEDULED TRIBE COMMUNITIES IN ODISHA



Technical Support & Consultancy:

KIIT School of Rural Management

KIIT University
Bhubaneswar, Odisha

Prepared by:

**SCs & STs Research and
Training Institute (SCSTRTI)**

Bhubaneswar,
Government of Odisha

STUDY ON TRADITIONAL MEDICINAL HEALING PRACTICES AMONG SELECTED SCHEDULED TRIBE COMMUNITIES IN ODISHA

Prepared by:

**SCs & STs Research and Training Institute (SCSTRTI),
Bhubaneswar, Government of Odisha**

Technical support & Consultancy by:



**KIIT School of Rural Management(KSRM),
Bhubaneswar - 751024, Odisha ,**

TABLE OF CONTENTS

CONTENTS	PAGE NO
<i>Table of Contents</i>	I
<i>List of Table</i>	V
<i>List of Figures</i>	VI
<i>Acronyms</i>	VII
<i>Executive Summary</i>	VIII
CHAPTER I: INTRODUCTION	1
Backdrop	1
Historical perspectives of traditional medicinal practices by the tribal communities with respect to their cultural diversity	3
Tribal Health Status in India & Odisha (ecology food & habitat)	6
Tribal Women & Child Health	10
Millennium development Goals vis-à-vis traditional healing practices	13
Rational of the study	16
Study Objectives	18
Research methodology	18
Universe and Sampling	19
Reference Period	21
Tools for data collection	21
Duration of the study	22
Research Personnel	23
Output deliverables	23
Scope and limitations	23
CHAPTER II : LITERATURE REVIEWS	25
CHAPTER III: AREA AND PEOPLE	38
Geographical location	38
Communication	39
Topography, climate, flora and fauna and ecology and environment of concern tribal districts of Odisha	39
Demography	49
Ethnic composition and inter-community relationship	70
Economy and livelihood	73
CHAPTER-IV: TRADITIONAL HEALTH AND HYGINE CULTURE	76

AMONG TRIBES	
Health and nutritional status	76
Food and drinking habits and seasonal variations	82
Hygienic Practices	95
Drinking water	103
CHAPTER-V: COMMON DISEASES, DISORDERS & DEFICIENCIES, THE ASSOCIATED BELIEF SYSTEM TO FIND OUT CAUSES AND REMEDIES	106
Morbidity Pattern of the STs of Odisha (Findings of Previous studies)	106
Morbidity Pattern of the STs of Odisha (Study Findings)	111
Associated belief system to find out causes and remedies	113
CHAPTER-VI : TRADITIONAL HEALERS: TRADITIONAL MEDICINE MEN & MAGICO-RELIGIOUS PRACTITIONERS	128
Definition and Roles of Medicine Man	128
Profiles of Medicine Men and their Patients	130
Analysis of qualitative data on Perception & Belief System about cause and diagnosis of diseases	151
Case Study of Healers & Patients	
CHAPTER-VII: MAJOR CONSTRAINTS FACED BY THE TRIBAL MEDICINE-MEN FOR PROVIDING HEALTH CARE FACILITIES TO PEOPLE MAJOR CONSTRAINTS	159
Major Constraints Faced by the Tribal Medicine-men	159
Highlights from the secondary sources	160
Livelihood Issues	160
Legal recognition Issues	161
Unwillingness of the younger generation to inherit & continue the tradition	162
Lack of documentation	162
Deforestation & Environmental Degradation	162
Unfavorable policy	163
Findings from the Field	164

CHAPTER VIII :GOVERNMENT INTERVENTIONS	168
Documentation of traditional health care practice	169
Protection of traditional ethno-medicinal knowledge	169
Preservation	171
Commercialization of ethno medicinal knowledge	175
Patent law	177
Government assistance	180
CHAPTER IX: SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION	181
Summary of Findings	181
Policy issue and options	185
Suggestions	186
Conclusion	189
REFERENCE	Xii
ANNEXURES	
Annexure –I- Personnel/ Organizations involved at different states	Xv
Annexure-II- List of Villages	Xvi
Annexure-III- Inventory of healing practices	Xvii
Annexure-IV-Details list of medicinal plants used by the healers	Xviii
Annexure –V- Data collection schedules	Xxxi
Annexure –VI- List of schedules for data collection	Xxxii

LIST OF TABLE

Content	Page no
Table 1.1 : Tribe wise sample details	19
Table 1.2 : Detailed tribe wise Sample size	20
Table 1.3 : Respondents and Methods	21
Table 3.1 : Population and literacy level of STs in Odisha	50
Table 3.2 : Distribution of tribes in the study area	52
Table 3.2 : Ethnic Composition of study villages	70
Table 3.3 : Tribal economy and livelihood pattern in study villages	74
Table 4.1.1: Different grades of anemia among four tribal populations of Orissa	78
Table 4.1.2: Mean nutrient composition of food consumed by Juang children (1-6)	81
Table 4.2.1: Food Habits of the STs	92
Table 4.2.2: Consumption of Intoxicants (Drinking and Smoking)	94
Table 4.2.3: Disease caused by insanity or excess consumption of alcohol	95
Table 4.3.1: Topography and settlement pattern of the study villages	96
Table 4.3.2: Sanitation Facilities and Hygienic practices at the study villages of the PTGs/STs	97
Table 4.2.3: Sex -Wise Distribution of Hygienic Practices	101
Table 4.2.4 : Drinking water sources and use	104
Table 5.2.1 : Morbidity Status among Patients/Respondents	112
Table 5.2.2 Tribe wise and area wise Morbidity Status among Patients/Respondents	112
Table 5.3.14.1: Tribals' perception about the causes of disease	123
Table 6.1 : Profile of Tribal Healers	130
Table 6.2 : Profiles of Tribal Healers as per Specialization	130
Table: 6.2.1 Profiles of individual tribal healers with specialization	131
Table: 6.2 Profiles of patients of tribal healers with their diseases and treatment received	133
Table: 6.2.1 Profiles of patients of tribal healers with their diseases and treatments received	134
Table: 6.3 : Profiles of Magico-Religious Healers as per Specialization	142
Table: 6.3.1 Profiles of Magico-Religious Healers as per Specialization	143
Table: 6.4 Profiles of patients of Magico-religious healers with their diseases and treatment received	145
Table: 6.4.1 Profiles of patients of Magico-religious healers with their diseases and treatment received	145
Table 7.2.1 : Nature of problems faced by the healers	164
Table: 7.2.2. Nature of Problems identified by People/Patients	266
Table 8.1 : Any input given/taken to enhance your knowledge and practice	180

LIST OF FIGURES

Content	Page no
Fig 4.2.1.1: Overall Food Habits among tribes	92
Fig 4.2.2.1: Intoxicant/ habit of tobacco among the tribal in the selected tribes	94
Fig 7.2.1: Nature of overall problem faced by the healers in the selected tribes	165

ACRONYMS

APL	-	Above Poverty Line
ARSH	-	Adolescents Reproductive and Sexual Health
BPL	-	Below Poverty Line
CD	-	Community Development
CPR	-	Common Property Resources
DANTB	-	- Danish International Tuberculosis
IAY	-	Indira Awas Yojana
ICDS	-	Integrated Child Development Service
IEC	-	Information, Education, Communication
ILO	-	International Labor Organization
NGO	-	Non Government Organization
NTFP	-	Non Timber Forest Produces
KSRM	-	KIIT School of Rural Management
PDS	-	Public Distribution System
PHC	-	Primary Health Center
PRA	-	Participatory Rural Appraisal
R.I	-	Revenue Inspector
RSC	-	Re-Settlement Colony
SHG	-	Self Help Group
ST	-	Scheduled Tribe
TBA	-	Traditional Birth Attendant
UNDP	-	United Nations Development Programme

EXECUTIVE SUMMARY

Odisha state occupies a distinct place in our country as it represents a unique blend of unity among various castes, communities and minority group. The ethnic personality of Odisha includes the scheduled tribes scheduled castes and other caste communities. Tribes of Odisha comprising of 62 ethnic groups constitute 22.23% of the total population of the state. Out of 62 communities, 13 are PTGs, because of their inaccessible habitat, small population, low level of literacy, and pre agricultural level of economy. The scheduled tribes are found distributed in varying degrees in all the 30 districts of the state, maximum and minimum being recorded in Malkangiri and Puri, respectively.

The tribal communities living close to the nature have, over years, acquired unique Traditional knowledge about use of living biological resources. The tribal people are the real custodian of medicinal plants. Out of 45000 species of wild plants, 75 species are used for medicinal purpose. A cursory look in to the genesis of indigenous medicine indicates that the interest in ethno medicine goes back to early 18th century and late 19th century. It was a period of an impressive development of social medicine. Further, interest on social and cultural dimension of illness reached a peak in the west stimulated by the public health problems associated with industrial revolution. In a nut shell the study of ethno medicine ranges from paleoanthropology to recent studies within the sub-field of medical anthropology.

Traditional medicine, healers and magico-religious leaders:

In the past decade, there has been renewed attention and interest in the use of traditional medicine globally'. Today, according to the WHO, as many as 80% of the world's population depend on traditional medicine and in India, 65% of the rural population use Ayurveda and medicinal plants to meet their primary health care needs. Thus, traditional medicine practices, conserved over decades from old civilizations, can serve as an effective basis for the discovery and development of modern therapeutic drugs. There are considerable economic benefits in the development of indigenous medicines and in the use of medicinal plants for the treatment of various diseases. Odisha with varied climatic regions has a rich and diverse flora and a mixed floristic composition of aboriginal species used in traditional medicine'.

Although, a good amount of ethno-botanical investigation has been carried out in the southern part of Odisha, still some areas are left unexplored. The state is the homeland of various tribal communities with their sub-tribes found in interior part of the forest. Among them there are 13 Particularly Vulnerable Tribal Groups (PTGs) such as *Bonda, Didayi, Juang, Saora, Mankirdia, Birhor* etc. Despite the impact of various developmental programmes, their traditional medicine system is still effective as it is easily available, accessible and affordable to them as compared to the modern medicine.

Study objectives:

The broad objectives of this research study are to assess the extent of traditional healing practices among the tribal in Odisha, to preparer an inventory of tribal traditional healers, and their expertise and influence, their indigenous medicines and healing practices, and to suggest for preservation and promotion of best traditional tribal medicines and healing practices of Odisha with special reference to its value addition and commercialization for improvement of tribal livelihood.

Study design:

The study is based on both the qualitative and quantitative methods of data collection. Looking at the nature of research this study was conducted covering 16 selected tribal communities including 5 PTGs in 13 districts using research tools like qualitative observations and open ended qualitative and quantitative interviewing method. In order to cover the best practices, some case studies were also placed. Data collection were made through structured schedules, open ended interviews and focused group discussion with the help of interview guide, observation and case studies. The target informants were experienced traditional healers, their patients, important community members and leaders of both the sexes, Government officers and experts. Extensive desk and library research were done to substantiate the study findings to obtain a community specific and cross-community listing of sources of medicine, preparation process, method of prescription, application style with respect to different diseases in detail. Data collected from one locality will be cross-checked in another locality to ensure reliability.

Study coverage:

Keeping the requirement of the study respondents were selected randomly in the villages, where the tribals are numerically preponderant. In each tribe two to three villages were selected looking at the availability of the population. In total the study covers 527 respondents including 72 traditional healers and 320 dependent patients of 16 tribal communities from 13 tribal districts in 3 different geographical zones. The number of respondents selected in each segment of the population was proportionate to the population size.

Major Findings

- ✚ Among the tribal population 70% of them go for agriculture as their main occupation. 10% animal husbandry and 9% wage labour and rest are depending on forest collections.
- ✚ The health status of tribal group in general is reported to be in poor condition. Their health and sickness are influenced in general by a combination of biological cultural and environmental factors.
- ✚ In tribal areas of Odisha the larger part of the diet is obtained from locally available and produced food materials. Religious customs and local traditions relating to feasts, fasts and food taboos do have a bearing on the dietary pattern of the people.
- ✚ It was found that taking of intoxicant is one of the major habits of tribal people. 64.43% of populations are addicted with tobacco and 84.34% with alcohol and other intoxicants. Intoxicant habit among most of the tribals is one of the major causes that lead to their diseases.
- ✚ In folk beliefs magical power are wielded by some persons with special training in magical lore and practices. Some others, in a way exclude evil magical power at the sight of beautiful, lovable or covetable objects, animals, crops or even presentable human beings.
- ✚ About 5.2% tribal population believe that accidental inhalation of this cold air can make a person very sick. They also believe that diseases and ailments such as typhoid, pneumonia, leucoderma, piles, goiter, rheumatism, etc, originates from the spell or curse to the evil spirits or exorcise, the violation of some god or to the work of sorcerers, who are inimical.
- ✚ Tribal community for every 100 population there is one traditional healer exists but

for every 1000 population it is getting difficult for one magico religious leader. The healers are happy with the profession and they could practice it well in their community.

- ✚ As many as 74 including 8 women are healer-respondents. Among the healers, 11% are illiterate and they do not have proper formal education but doing well in their profession. 55% of the healers have above metric qualification. 30% healers are trained and almost all healers have gained experiences which vary from 5 years to 10 years. From the study it is evident that educational background of the healers and magico-religious leaders does not have different impact on their profession.
- ✚ 35% to 56% tribals are of the opinion that illness is caused by the wrath of god/goddesses/ancestors/ghost and evil spirit. Thus they believe on traditional healers or magico-religious men. It also observed that as per the cultural superstition and barrier the tribal population believe more on evil eye and Unseen super natural power
- ✚ The traditional healers have used their spiritual skill more than their traditional skill for the treatment of the patients. In many cases also the healers also use both the skill for the treatment.
- ✚ In case of common cold, cough and fever tribal people were found reluctant to go for treatment. They used to perceive it as seasonal problem and believed in natural cure. Thus it was reported that almost one third of the people in both set of villages stayed at home while suffering from this disease. In case of children suffering from prolong cough, nearly 42 %of them in distant villages were treated with medicine provided from PHC etc.
- ✚ The people affected by diarrhea sought treatment from traditional healer. People preferred seeking for modern health care facilities in case of serious disease at a later stage. But lack of facilities in distant villages drew people's attention towards traditional healing system.
- ✚ The people perceived change of weather as a major cause of fever, cold and cough. In case of diarrhea lack of nutrition was one of the major causes known to them. According to the half of the people jaundice was caused by the effect of bad spirit. This also established the reason why most of the affected people sought treatment of traditional healers instead of modern medicine.
- ✚ Three disciples are there for every *GURU* in the study areas. 67% of the healers agree that there are teaching learning process exists between *GURU-SHISYA*. The

transmission of knowledge is a self driven process and when we think of any local process of treatment it is fully depend on the disciples.

- ✚ There is no record keeping practice with any of the healers in any community. The disciple should show their own interest in learning this practice and work for any particular community.
- ✚ The data suggest that the people belonging to the most productive age groups are highly affected by different diseases followed by children (below 6 years).
- ✚ The income from this profession is not enough for the healers or the disciples. It is getting difficult for the young generation to go for this profession due to several factors i.e. social barrier, economic barrier, community resistances, not liked by the follow workers, etc.
- ✚ Due to the depletion of forest and major initiatives are taken by the Govt. /forest departments now-a-days the healers are facing problems for collecting their essential herbs and herbal plants from the forest. This is one of the major problems that are healers (i.e. 75%) facing today.
- ✚ Most of the traditional healers and medicine men (82.75%) are facing more problems due to non- availability of herbs, unsustainable livelihood, introduction of modern treatment etc. But still major portion of healers believes that (i.e. 82.75%) and rest 17.42% are not believe in this issues.
- ✚ Half of the healers felt that remarkable changes have occurred in the healing practices. Around 40% of the healers agreed that time to come this profession is not going to earn their livelihood. The health care interventions of Govt. has increased and the community belief is a constraint for the healers.

Suggestions:

Services of these traditional healers are of great importance to the tribal as they are rendering their services to the tribal in very remote places where people are really in need of health services. These traditional healers need to be involved in all sorts of trainings to youngsters as well as refreshing their knowledge with healers of other communities. This will facilitate them to acquire and correlate their knowledge with that of the established records and information available with other communities.

The importance of the tribal medicine has to be acknowledged by the govt system and policies. The role of government for the existence of this system of medicine should be to give due recognition to their contribution and involvement of tribal medicine men. Steps

need be taken to delineate the specific scope, limit and role of traditional healers in public health promotion so that the heritage and culture of tribal communities are saved from extinct. Further, the research and development activities should be undertaken by the govt for safe up-keeping of this healing system. The system should provide orientation and support to healers and magico-religious leaders and there should be proper monitoring and strengthening system to do proper follow up.

Conclusion:

This study shows that knowledge and usage of traditional medicine for the treatment of various ailments among tribes is still a major part of their life and culture. Cultural and biological biodiversity are intimately and inextricably linked. The traditional healers still enjoy faith of the tribal's for their timely services and efficacy. The treatment practices of the *Tribal* are also influenced by ethno-medicines largely collected even from distant forests. The modern health interventions started since 80s in this region are yet to be available within the reach of the people. The traditional knowledge on the treatment of diseases, which transfers from generation to generation, is yet to be scientifically documented. Thus steps should be taken to document the oral healing knowledge of the tribal for their scientific value addition, wide application and integration in to the Govt health interventions in tribal areas.

CHAPTER I

Introduction

1.0. Backdrop:

Medical anthropology is considered as the study of ethno medicine; elucidation of illness and disease; from both an emic and etic point of view. Studies reveal that the practice of medical care, treatment and concept and etiology of disease and illness among tribal societies are defined within the socio- cultural context. To know the health seeking behavior and community remedy it is important to identify the processes by which tribals recognize sickness and the ways to counteract it. Illnesses among the tribal community are constructs of belief and knowledge, which vary with time and space. The studies on tribal traditional therapy system have revealed that they are based primarily on two principles: first, the belief about the nature of health, the cause of illness, and the remedies and the other curing techniques used by healers, and the second, the traditions adopted by the community to deal with sickness and maintenance of health.

According to World Health Organization (2002:7) Traditional medicine refers to health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being. There are different names or synonyms of Traditional medicine. They are like Alternative medicine, Complementary medicine, Natural medicine, Herbal medicine, on-conventional medicine, Indigenous medicine, Folk medicine, Ethno medicine, etc.

It is said that the scheduled tribes are the descendants of aboriginal population. According to 2001 census, as many as 84,326,240 ST people, about a half of these indigenous people of the tribal world, are living in India. This segment of Indian population constitutes 8.2% of the India's total population. In India, there are about 635 tribal groups and subgroups including 75 PTGs. The state of Orissa occupies unique

position in the tribal map of India having 62 scheduled tribal communities, unevenly distributed in forest and hilly areas including 13 PTGs with a population of over 8.15 million constituting 22.3% of the population of the state as per 2001 Census. The tribal panorama presents a kaleidoscopic mosaic in Orissa with various ethnic, linguistic, cultural, religious, moral values, traditions, folklore styles, food habits, and genetic strands maintaining at various levels of development – social, cultural and economic life. To eke out their livelihood they mainly depend on forest for hunting, food gathering and shifting cultivation. Besides, settled cultivation and wage earning is their mainstay. The STs are not a homogeneous mass and cannot be lumped together for assessing their health needs and problems in Orissa. They live in varied habitats, climatic conditions and ecological niches, which shape their health condition, traditional health related belief and healing practices.

Tribal communities are mostly forest dwellers. Their health system and medical knowledge over ages known as ‘Traditional Health Care System’ depend both on the herbal and the psychosomatic lines of treatment. While plants, flowers, seeds, animals and other naturally available substances formed the major basis of treatment, this practice always had a touch of mysticism, supernatural and magic, often resulting in specific magico-religious rites (Balgir, 1997). Faith healing has always been a part of the traditional treatment in the Tribal Health Care System, which can be equated with rapport or confidence building in the modern treatment procedure. For example, the doctor priests of the Saora tribe utilize several herbs and roots in conjunction with their magico-religious rites in Orissa. Health problems and health practices of tribal communities have been profoundly influenced by the interplay of complex social, cultural, educational, economic and political practices. The study of health culture of tribal communities belonging to the poorest strata of society is highly desirable and essential to determine their access to different health services available in a social set up.

The common beliefs, customs, traditions, values and practices connected with health and disease have been closely associated with the treatment of diseases. In most of tribal communities, there is a wealth of folklore associated with health beliefs. Knowledge of folklore of different socio-cultural systems of tribals may have positive impact, which could provide the model for appropriate health and sanitary practices in a given ecosystem. The health culture of a community does not change so easily with changes in the

access to various health services (Balgir, 2004a). Hence, it is required to change the health services to conform to health culture of tribal communities for optimal utilization of health services.

It is important to mention that the tribal community till today believe and practise the make use of “healing herbs for all and follow the premise, like “self cure is the best cure”. The existing undocumented tribal healing practices, act as a panacea to a host of their illness, further needs to be researched and documented with a view to explore, explain and experience the scientific ingredients behind this. The present research investigation and estimate of indigenous medicine will help find the medicinal properties of the herbs and other forest based produces used by the tribal for healing their diseases, which can be put into future use in Ayurvedic and other scientific medicines so as to address cause of tribal illness locally within the easy reach. With this backdrop it was suggested that the commissioning of this research study on traditional medicinal healing practices among selected tribal communities of Odisha would add to the existing knowledge on medical anthropology and especially on the ethno-medicines.

1.1 Historical perspectives of traditional medicinal practices by the tribal communities with respect to their cultural diversity:

The knowledge of the medicinal value of plants and herbs and their uses go back to the ancient times. The vast amount of medical knowledge that has come down to modern times is the result of long evolution through trial and error and exchange of know-how between diverse communities and regions. The process of exchange and assimilation continues, and today traditional medical practices are obliged to accommodate to the norms of modern biomedicine. However, there is growing awareness among the scientific community and the general public about the intrinsic value of traditional medicine, and as a result Ayurveda, Unani and Siddha have entered the mainstream to compliment biomedicine. The challenge today is to integrate the best of the different healing traditions to meet the healthcare needs of contemporary society.

Excavations at different sites suggest that medical interventions such as dentistry and trepanation were practiced as early as 7000 BCE in the Indian subcontinent. Organized forms of agriculture practiced by the people of the Indus civilization, the importance they gave to certain medicinal plants and trees and the emphasis on hygiene

and water sanitation suggest an advanced awareness of health management. Trade routes linked the Indus valley civilization to other parts of the subcontinent and westward to Persia, Mesopotamia and the Arabian Sea, and northward to Central Asia. It is highly likely that botanical and medical commodities and knowledge were among the prized items of exchange. Recent archaeo-botanical excavations give evidence for the use in the Middle Gangetic region of medicinal plants since the 2nd millennium BCE that are still used by Ayurvedic physicians and folk healers.

The Vedic hymns of the migrant Aryan tribes are the earliest literary source of information about healing practices in the sub-continent. These hymns provide insights into diseases prevalent during the period and their perceived causes. Most ailments, both physical and mental, were attributed to malevolent spirits and cures consisted of rituals, charms, mantras, medicines and surgical intervention. The hymns in the Atharva Veda, the last of the four Vedas, and largely composed after the Aryans were well settled in the sub-continent, indicate that indigenous non-Aryan healing practices had influenced the Vedic Aryan healers.

In Vedic period, the diverse cultures were interacting in small kingdoms and urban centers. There was growing awareness of the influence of life-style and regimens on health and well-being. The movements in the region east of the confluence of Ganga and Yamuna promoted free spirit of enquiry and experimentation in all fields of knowledge, especially in medicine. Early Buddhist and Jaina texts in Prakrit (Pali and other vernacular languages) describe the use of medicines, surgical procedures, trepanation, purges and emetics, practices consolidated from all levels of society. The early texts also gave cognizance to the importance of cultivating compassion and humanistic values as being essential for health and well-being. Buddhism took with it medical knowledge to southern part of the sub-continent and Sri Lanka, especially during and after the reign of Ashoka the Great. Buddha himself was seen as the “healing guru” (*Bhaishajyaguru*) and healing practices were part of the Buddhist monastic tradition.

Ayurveda, which was the most trusted medicine during ancient time, still holds confidence and trust among people. The concept and practice of folk medicine popular among Indians in rural and tribal areas are based on the humeral theories, cosmological speculations and magic. The main field of this discipline includes midwifery, bone-setting, and super natural cures, of various type with the main emphasis on the utilization of

locally available natural resources. Due to lack of communication, of intermingling and cross-fertilization of ideas, as also due to varying ways of life, many of these earlier remedies survived orally from generation to generation. These not only exist but being practiced many parts of our country particularly in remote rural and tribal communities. In folk medical system, a disease is often believed to be caused by wrath of gods and effects of evil spirits and healing art was followed by prayers, several hymn, and often aided by the administration of herbal remedies. It is significant that purpose of medicine more as a mean of preserving health rather than of curing diseases. It is significant that the purpose of medicine, the folk medical systems also undergo modification in several ways in different socio-cultural and environmental set-ups. Grown as a medicine through trial and error methods in the folk medical system, a preparation may receive scientific validation, and then it becomes part of a greater or organized system of medicine.

The healers within a tribal community at times the prescriptions vary against the same illness. Each healer is an island of knowledge and there is no uniformity in the quantum of knowledge among the healers. Exchange of knowledge between healers is practically nil. A healer may have the knowledge of more than one recipe against an illness. In this context it may be important to understand the mode of acquiring the knowledge by the healers and the transmission of their knowledge from one generation to another. In the light of observations on the tribal communities covered under this study the mode of acquiring knowledge and status by the healers can be classified into the following five categories, like status association, hereditary, dream induced, learning by apprenticeship and acquiring through practice (Nair, 1995).

Anthropological research on tribal medicine of the Gonds and Baigas by Lamba and Mchta (1995) revealed that the majority of the tribal population prefers the traditional, culture - rooted cures of their own indigenous healers. The various factors for their situation were cultural acceptability, low cost, easy accessibility, elaborate patient - healer interaction, culturally ordained curative modes, tremendous trust in healer's prowess, healer is life - long friend and ally, long - term family association and healer's cures encompass the entire homestead. They concluded at the end that, 'centuries of experimentation through methods of elimination and hit and trial have made the tribal system of medicine and its practitioners immortal.

A survey among the Bhutia – Lepchas communities in Sikkim reveal that Tibetan medicinal practice have direct influences on the tribal medicine. The Tibetan medicinal practice does not only involve psycho - somatic healing process. It also includes the physical process of healing. Massage and acupuncture are two very popular methods of Tibetan treatment. Aromatic medicinal substances in oils or butteries applied in conjunction with massage. The Tibetans maintain that consciousness can be affected through the skin were the path of their air interfaces with external environment. Sikkim is rich in valuable medicinal plants, nurtured by the Buddhist Gompas for the traditional Tibetan pharmacopoeia. Conserving these plants has ensured the survival of one of the oldest systems of medicine, stretching back more than 2500 years. "There are certain trends in Sikkim state where the local tribals have little say and are particularly true for the development of the herbal medicine. Both local and foreign institutions are showing interest in furthering this as a marketable industry. The Bhutia - Lepcha people, however, have not been co-opted to it and also have not realized till now the issue of Intellectual Property Rights associated with it" Roy Burman (1999).

According to WHO's estimate there are about 5 lakh practitioner of traditional medicine in India and their qualifications range from university degrees to skill and knowledge acquired after several years of apprenticeship with established practitioners. The indigenous system of medicine is practiced by a large number of hereditary practitioners. The techniques of the indigenous system are according to the style and practice of the healer and may include meditation and relaxation. The traditional practitioners never had a formal training. The kind of training that is pursued by the traditional healers to pass on their powers is informal i.e., by word of mouth. The diagnosis of the disease is based on the physical examination and symptoms of the disease. Their indigenous medicines are mostly hereditary formulae prepared from herbs, powders, minerals and products of animal origin.

1.2 Tribal Health Status in India and Odisha with reference to Ecology, Food and Habitat:

Tribal culture flourishes in the specific ecological niche. The natural environment plays an important role in the formation of tribal culture in different eco - setting. So the health seeking behavior for diagnosis and treatment of various diseases is related to the cognizance of their environment. In order to save tribal people from the crunches of

diseases, along with the biological aspects, the social and cultural aspects should be taken into consideration while undertaking any healing system in tribal area.

Throughout the world, plants have been in continuous use in one way or the other for the treatment of various ailments. In India, the sacred Vedas, which date back between 3500 B.C. and 800 B.C., give many references of medicinal plants. The indigenous traditional knowledge of medicinal plants of various ethnic communities, where it has been transmitted orally for centuries is fast disappearing from the face of the earth due to the advent of modern technology and transformation of traditional culture. The collection of information about natural flora, classification, management and use of plants by the people holds importance among the ethnobotanists.

The tribals inherit rich traditional knowledge about the medicinal uses of flora investigated and apply this knowledge for making crude phytomedicines to cure infections a number of ailments from simple cold to other complicated diseases. Traditional knowledge forms the basis for origin of not only alternative medicine but also paved way to evolution of a gamut of new and novel modern medicines. As for example, Similipal Biosphere Reserve (SBR) in Mayurbhanj district of Orissa is the most luxuriant forest and rich in medicinal plant resources. The forest area is dominated by a number of tribes such as Kol, Santal, Bhumij, Mankidias and Khadias who depends on the forest for their food to medicine. It is reported that ethno medicinal uses of 32 potential medicinal plants belong to 24 families of medicinal plants used for ailment of various diseases like leucorrhoea, spermatorrhea, piles, sore throat, rheumatism, elephantiasis etc. by Kol tribe living in some villages situated in and around Similipal Biosphere Reserve.

According to the World Health Organization (WHO), the definition of health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The health status of any community is influenced by the interplay of health consciousness of the people, socio-cultural, demographic, economic, educational and political factors. The common beliefs, traditional customs, myths, practices related to health and disease in turn influence the health seeking behaviour of autochthonous people (Balgir 2004a). Health is an essential component of the well-being of mankind and is a prerequisite for human development. If general health of an average non-tribal Indian is inferior to the Western and even many Asian counterparts, the health of an average Indian tribal is found to be much poorer compared to the non-tribal

counterpart. The health status of tribal populations is very poor and worst of PTG people because of their isolation, remoteness and being largely unaffected by the developmental process going on in India.

Tribal communities in general and PTGs in particular are highly disease prone. Also they do not have required access to basic health facilities. They are most exploited, neglected, and highly vulnerable to diseases with high degree of malnutrition, morbidity and mortality (Balgir, 2004). Their misery is compounded by poverty, illiteracy, ignorance of causes of diseases, hostile environment, poor sanitation, lack of safe drinking water and blind beliefs, etc. The chief causes of high maternal mortality rate are found to be poor nutritional status, low haemoglobin (anaemia), unhygienic and primitive practices for parturition. Average calorie as well as protein consumption is found to be below the recommended level for the pregnant as well as lactating women. Some of the preventable diseases such as tuberculosis, malaria, gastroenteritis, filariasis, measles, tetanus, whooping cough, skin diseases (scabies), etc. are also high among the tribals. Some of the diseases of genetic origin reported to be occurring in the Indian tribal population are sickle cell anaemia, alpha- and beta-thalassaemia, glucose-6-phosphate dehydrogenase (G6PD) deficiency, etc. (Balgir, 2004b). Night blindness, sexually transmitted diseases are well known public health problems of tribals in India.

The primitive tribes in India have distinct health problems, mainly governed by multidimensional factors such as habitat, difficult terrains, varied ecological niches, illiteracy, poverty, isolation, superstitions and deforestation. The tribal people in India have their own life styles, food habits, beliefs, traditions and socio-cultural activities. The health and nutritional problems of the vast tribal populations are varied because of bewildering diversity in their socio-economic, cultural and ecological settings (Balgir 2000a). However, data analysis in view of their ecological, ethnological, cultural and biological diversity is lacking in India.

The primary health care infrastructure provides the first level of contact between the population and health care providers and forms the common pathway for implementation of all the health and family welfare programs. It provides integrated promotive, preventive, curative and rehabilitative services to the population close to their hearth and home. A majority of the health care needs of the tribal population are taken

care of either by the trained health personnel at the primary health care level or by their own traditional indigenous health practitioners at village level. Those requiring specialized care are referred to secondary and tertiary sector. The tribal population is not a homogeneous one. There are wide variations with regard to education and health status, access and utilization of health services among the tribal populations (Balgir, 2000a).

The Health Strategy of Orissa in 2003 has advocated the improvement in health status of tribal population by reducing the morbidity and mortality in them. Tribal people suffer from special health problems disproportionately such as malaria, sexually transmitted diseases, tuberculosis, nutritional deficiency diseases, genetic disorders like glucose-6-phosphate dehydrogenase (G6PD) deficiency, sickle cell anaemia, etc. The situation analysis of health indices of the tribal population in Orissa is worse than the national average: infant mortality rate 84.2, under five mortality rate 126.6, children underweight 55.9, anaemia in children 79.8, children with acute respiratory infection 22.4, children with recent diarrhoea 21.1, women with anaemia 64.9 per 1000. A high incidence of malnutrition has also been documented in tribal dominated districts of Orissa. This scenario presents a very grim picture about the general health and quality of life of the tribal people in Orissa. There is an urgent need to combat the health problems and take the rehabilitative measures to alleviate the sufferings of the dwindling masses in the state of Orissa.

Tribal habitat and ecology is hospitable host for traditional farming like millet and thereby providing food security to the tribals. They use to take gruel of millets as food and drinks. Scientifically, the analyses of the millets show that these food grains have anti-cold and anti-cancer properties. Besides, millet is good for health and nutrition. They consume different natural produces, like green leaves, fruits nuts, flowers, herbs collected from forest. As such the tribal traditional system of healing was linked with nature. Popularisation of this system will increase public awareness regarding importance of conservation of forests and the precious healing herbs in them. Keeping the increased demand of herbal remedies throughout the tribal world there is an urgent need to take suitable measures which can be encashed through sustainable conservation, collection and marketing of medicinal herbs and their products.

More than 60% of tribal populations of Orissa live in high-risk areas for malaria. Though the tribal communities constitute nearly 8% of the total population of India, they contribute 25% of the total malaria cases and 15% of the total Pf cases, leading to 30-50% malaria deaths in India. A high transmission of Pf is in the forest regions because malaria control in such settlements is unattainable due to technical and operational problems. During the year 2002-03 in Malkangiri, Kandhamal and Keonjhar districts of Orissa, the slide positivity rate (SPR) was recorded to be high in Bondo (14.2%), Didayi (14.4%), Juang (9.5%) and Kutia Kondh (10.5%) with the high Pf rate in Bondo (93.5%), Didayi (92.7%), Juang (91.2%) and in Kutia Kondh (92.7%) PTGs. The spleen rate in children between 2 to 9 years was also high in Bondo (25.8%), Didayi (35.1%), Juang (24.4%) and in Kutia Kondh (26.3%) tribal population in Orissa (Balgir, 167).

1.3 Tribal Women & Child Health:

Women constitute over 15.5 million, i.e. about half of the total population of Odisha. In tribal Odisha the females outnumber males. Thus to achieve the goal of “health for all” (HFA) more attention must be given to women’s health and their roles in health and development as well as their empowerment. It would be relevant to point out here certain areas of common that need particular attention with regard to tribal women’s health.

Ironically enough, the dominant role that a tribal woman plays within her family set-up and outside, goes against her own physical well-being. She finds herself overburdened with work at home as well as field. Tending to her children, cattle, fields or forest produce, collecting and carrying water, food, fuel over hard hilly terrains, all these chores fall to her lot. Most likely she also undergoes a pregnancy and/or lactating at the same time. Coupled with this is her grossly inadequate food intake. Inadequate nutrition results in serious negative energy balance which over a period of time leads to severe weakness, emaciation, low work output, predisposition to infection, hence the high incidence of morbidity and mortality among tribal women.

In tribal society the trend to putting the physical burden on female begins to right from childhood. Socially, the young girls are considered mature earlier than that of their counterpart young boys. The young girl just naturally assumes responsibility of her young

girl just naturally assumes responsibility of her younger siblings, gives a hand in the home and outside, while schooling is totally denied to her. A state of gross under nutrition where calories intake falls far below requirements, along with heavy physical labour and the resulting negative energy balance means that her growth needs are not met with and she never reaches full potential of height and weight.

Before the girl has acquired full sexual maturity and growth in terms of height, weight and pelvic girth, carries with it the obvious obstetric risks resulting more often than not in miscarriage fetal deformities and death. Thus, overwork, emaciation, early child bearing are all responsible for the extremely high maternal mortality rate.

Iron deficiency anemia accounts for 15-30 percent of maternal deaths in India where 60-70% of women are found to be anemic (Hb below WHO min, STD of 10mg percent). Iron deficiency disorder (IDD) are prevalent in tribal areas falling in the goiter belt. Iodine deficiency in pregnancy results in poor fetal brain development giving birth to certain, deaf, mutes mentally sub normal children with specific defects and poor coordination.

It is important to be aware of the fact that our soil, on account of long years of repeated cultivation, is being steadily depleted of important minerals, which result in lower levels of these micronutrients in vegetation, giving rise to deficiencies in micronutrients such as Zinc. This is areas of concern especially agronomist. Vitamin –A deficiency- it is also a serious problem in certain pockets being subjected to deforestation or in semi-urban tribal regions for lack of availability of fresh and leafy vegetables. The women need to be made aware of the importance of green leafy and yellow vegetables, to avert the disastrous effects of vitamin-A deficiency. While the subject of nutrition one cannot ignore the various existing taboos and superstitions with regard to a women's dietary intake especially during her reproductive years, making matters worse than they already are.

Gynecological Disorders has been a very grey area until recently which the women in general and tribal women in particular suffer in silence. A well-known community based study by Rani Bang (2001) in Maharashtra revealed 92% of women had one or more gynecological disorders while 7% of them received any medical care. The commonest of these are infectious of genital and reproductive tracts, menstrual disorders etc., resulting in

abortions, sterility, chronic discomfort, reduced work output and mental anxiety. Urinary tract infection is also widely prevalent among tribal women and suffered in silence.

Health care system and services in tribal areas gives a very dismal picture. The MHC programme has reached less than 50% pregnant women in India. The figure would be very much lower in tribal areas, infect almost nil in most remote regions. Genetic Disorder: the high prevalence of sickle cell anemia and G6PD deficiency in tribal populations was hitherto a neglected area, but gladly enough has been taken due to not of by ICMR and other related institutions and a country wide programmer is now under way to identify and work on prophylactic measures.

Social Evil like alcoholism has always been a recognized problem in tribal populations affecting not only the man's health and productivity, but in directly with women and children as all the feeble hard earned resources of the women are drained out on this one course. It is charting to learn of women's movement in certain regions but these needs to take on wider proportion.

Attitude, ignorance, illiteracy have also contribute a lot to the poor health status of the tribal women and children. In the face of near total illiteracy tribal women and ignorance that goes with it, the dismal picture of the girl child or women, physically emaciated, mentally harassed, sexually harassed and socially exploited. Health is indeed a far way.

Therefore, the Ministry of Health and Family Welfare (MoHFW) have been launched several initiatives by like the Janani Suraksha Yojana (JSY), Janani Sisu Surakshya Karyakram, Mamata Scheme, Mo Masari for pregnant mothers and National Ambulance Services under the National Health Mission (NHM) that have led to improvement of maternal and child health in the state. "But these schemes have to be properly implemented to achieve the target set by the state government for these backward districts in the next three years," state government aims to bring down maternal and infant mortality rates drastically in the 10 most backward districts of the state in the next three years.

The infant mortality rates (per 1000 live births) were very high in four primitive tribes, namely, Bondo (139.5), Didayi (131.6), Juang (132.4) and in Kutia Kondh (128.7) with high maternal mortality rate (per 1000 female population) in Bondo (12), Didayi (10.9), Juang (11.4) and Kutia Kondh (11.2) tribe. The life expectancy was low in Bondo (48.7), Didayi (57.1), Juang (49.6) and Kutia Kondh (50.7 years). The crude birth rate (per 1000 population) was also low in Bondo (18.3), Didayi (24.3), Juang (22.3) and Kutia Kondh (21.6) with the high crude death rate (per 1000 population) in Bondo (19.2), Didayi (23.7), Juang (21.2) and Kutia Kondh (20.9) population. The average number of pregnancies was found to be 5.09 in Kutia Kondh tribe. The unhygienic and primitive parturition practices were mainly responsible for high maternal mortality. Among Kutia Kandha tribe, the delivery was conducted by the mother herself in a half squatting position holding a rope tied to roof of the house. This helps her in applying pressure to deliver the child. In complicated labour, obviously, it might lead to maternal as well as child mortality. The respiratory diseases including upper respiratory tract infections were more commonly prevalent in Bondo (14.9%), Didayi (16.6%), Juang (8.3%) and in Kutia Kondh (13.6%) tribe, which accounted for a high infant mortality due to inadequate vaccination, lack of early diagnosis and treatment and prevention (ICMR, 1984).

A recent annual health survey (2013) has revealed a decline in maternal mortality from 277 (AHS 2010-11) to 235 (SRS 2012-13) and decrease in infant mortality from 62 (AHS-2010-11) to 53 (SRS- 2012-13) in the State. Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) programme has been launched to address difficulties being faced by pregnant women and parents of sick newborns in the 10 high priority districts, Malkanagiri, Koraput, Gajapati, Bolangir, Kandhamal, Rayagada, Nawarangpur, Boudh, Kalahandi & Nuapada. The Govt. of Odisha has already initiated a state level consultation programme on Reproductive, Maternal, Newborn, Child and Adolescent health (RMNCHA) in association with State Lead Partner DFID and representatives of development partners UNICEF, UNFPA and NIPI, as part of the efforts to solicit inputs and suggestions from various development partners on providing quality and adequate healthcare services to every mother and child in the 10 high priority districts of the state. The state government is aiming to reduce the maternal and infant mortality rate to 100 and 30 respectively in the next three years 2014-2017.”

1.4 Millennium Development Goals (MDG) vis-à-vis Traditional Healing Practices:

The Millennium Development Goals (MDGs) are eight development goals that were officially established following the Millennium Summit of the United Nations in 2000, following the adoption of the United Nations Millennium Declaration. All 193 United Nations member states and at least 23 international organizations have agreed to achieve these goals by the year 2015. The goals are eradicating extreme poverty and hunger, achieving universal primary education, promoting gender equality and empowering women, reducing child mortality rates, improving maternal health, combating HIV/AIDS, malaria, and other diseases, ensuring environmental sustainability, and developing a global partnership for development. Each of the goals has specific stated targets and dates for achieving those targets. To accelerate progress, the G 8 Finance Ministers agreed in June, 2005 to provide enough funds to the World Bank, the International Monetary Fund (IMF), and the African Development Bank (ADB) to cancel an additional \$40 to \$55 billion in debt owed by members of the Heavily Indebted Poor Countries (HIPC) to allow impoverished countries to rechannel the resources saved from the forgiven debt to social programs for improving health and education and for alleviating poverty.

The United Nations (UN) members met in 2000 and set themselves eight goals to be achieved by 2015. Of these goals, reducing child mortality, improving maternal health, and combating HIV/AIDS, malaria and other diseases related to the health segment were included. The first goal 'of eradicating extreme poverty and hunger' also contains a nutritional element which is health related. In the developing world, death rates in children under five are dropping, but not fast enough. Eleven million children are still dying every year, from preventable or treatable causes. More than half a million women die each year during pregnancy or childbirth. AIDS has become the fourth largest killer worldwide, and in parts of Asia, HIV is spreading at an alarming rate. The plight of malaria and tuberculosis continues.

Governments around the world strive to ensure that their populations have access to the best of the basic necessities of life such as education, shelter, food, water and health care. Their people on the other hand cooperate through paying taxes, providing labor and skills to ensure that they also enjoy these necessities of life. Health related issues of recent have been on the forefront of many governments such as those found in the Americas,

Asia and the African regions. Prominent example is the United States of America Health care plan, African countries struggles of eradicating diseases such as malaria, HIV/AIDS, promotion of maternal health among other health related issues and Asian countries drive to include traditional medicine in their healthcare systems such as China. All these efforts have consequently led to making the right to health a very central right in every region, and giving it a more significant place in the human rights sphere.

In rural and tribal areas, reducing child mortality and improving maternal health are major challenges. HIV is spreading fast in urban and slum areas. Health care in India has been neglected because of insufficient spending by the government. The Central Government has vowed to increase spending on health to 6% of Gross Domestic Product (GDP) by 2010 (as revealed recently by Union Health Minister that India would be able to meet the UN Millennium Development Goals, of which health is an important segment), and has unveiled a National Rural Health Mission. If this dream comes true, villages would have 24-hour health care services provided by an army of paramedics.

The UN Committee on Economic and Social Rights recognizes the use of traditional medicine or alternative medicine as a way of achieving the right to health envisaged in the Convention. The Committee through this recognition stresses the importance of Governments taking into account indigenous people's ways of keeping their health in check and consequently cautions that removing indigenous peoples from their habitat or not providing mechanisms for them to control their recourses will have adverse effect to their health, and eventually compromising their right to health. "The Committee considers that, "indigenous peoples have the right to specific measures to improve their access to health services and care and that these health services should be culturally appropriate, taking into account traditional preventive care, healing practices and medicines." Therefore, though having not provided a definition one can infer and provide that the Committee supports or rather do not discourage the notion of using traditional or alternative medicine by States in the pursuit of realizing the full enjoyment of the right to health.

Modern medicine, contemporary or western medicine as referred by many scholars such as Larkin Gerald, involves the use of pharmaceutically prepared medicine,

biotechnology in a health care system that involves seeking the assistance of professionalized service provided around the clock, with governmental policies backing it up. According to him, this is unlike the use of traditional methods characterized by community healer's expertise and non documented evidence of its potential, contributing to its less revered position in the occupational field of medicine. Larkins position is all too familiar with the current status of many health care systems in the world. Very few countries have incorporated the use of traditional medicine into their health care systems and their realization of the right to health can be seen to tremendously improve, for example china. While most countries are struggling to provide modern medicine, what they do not consider is the existing resources, natural medicine in their own back yard.

The World Health Organization champions the careful use of alternative medicine alongside modern medicine as long as safe guards are put in place to avoid exploitation and abuse of people seeking to use its resources as a way of realizing the right to health. In reality, traditional medicine is being used by many people in the world like Asia, Africa to Latin America and that the class that most depends on it are millions of people living in the rural areas, because of its affordability, accessibility and the trust of its healing nature and the traditional healers expertise. She further states that facts have shown that in recent times most affluent people in the society have turned to the use of complementary therapies and as a result it has become a multibillion sector. While referring to different carried out researches as to the reasons of this change, she comes to the conclusion that the use of alternative medicine has been resorted to, due to the depersonalized medical care and dwindling numbers of trained personnel. Deriving illustrations from China health care system, traditional medicine can be used concurrently with modern medicine in providing primary health care despite the fact that it cannot always be a substitute for the highly effective modern medicine and its emergency measures. For centuries, indigenous people in the world have relied on their traditional healers, even with the evolution of medicine which is basically derived from processing of herbs has not fettered their faith in the use of traditional medicine in the world. It is true that without safe regulation and implementation of procedural safe guards, traditional medicine maybe exploited, this truthfulness applies as well to the highly effective modern medicine.

1.5 Rational of the study:

National policy speaks of regulation for safety, efficacy and quality, access and rational use of traditional medicines. Research works on people's perception of disease, indigenous typology and related causes seem inadequate. So also there is inadequate documentation of traditional knowledge of healers relating to diagnosis, preparation of doses, collection of flora and fauna from different sources, prescription and application style and dissemination of knowledge within framework of local health tradition. Thus it is a critical need to mainstream traditional medicine into public health care to achieve the objective of improved access to healthcare facilities. Inadequate understanding of socio-cultural context of their practice and usage, protection of intellectual property rights of knowledge holders, assuring sustainable natural resource use, regulation and capacity building of non-formal practitioners have been felt.

In the past decade, there has been renewed attention and interest in the use of traditional medicine globally. Today, according to the WHO, as many as 80% of the world's people depend on traditional medicine and in India, 65% of the rural population use Ayurveda and medicinal plants to meet their primary health care needs. Thus, traditional medicine practices, conserved over decades from old civilizations, can serve as an effective basis for the discovery and development of modern therapeutic drugs. There are considerable economic benefits in the development of indigenous medicines and in the use of medicinal plants for the treatment of various diseases.

Odisha with varied climatic regions has a rich and diverse flora and a mixed floristic composition of aboriginal species used in traditional medicine'. Although, some ethno-botanical investigation has been carried out in the southern part of Odisha, still some areas are left unexplored. The state is the homeland of different 62 including 13 Particularly Vulnerable Tribal Groups (PTGs) tribal communities with their sub-tribes found in interior part of the forest.

There is no adequate data on the social - cultural dimensions of healing practices including the use of folk/tribal medicines and related measures. There are many herbs in the tribal areas whose medicinal values and usefulness in curing the diseases are known which need to be documented. There is ruthless destruction of the forests leading not only to the disappearance of the various medicinal herbs but also the fauna affecting the tribal economy as well as creating an imbalance in their nutritional eco-systems.

Under the forces of modernization, industrialization and developmental programmes the indigenous therapy knowledge of the STs are slowly dying out day by day. However, Ethno-medicine studies by anthropologists indicate that traditional medicines do exist and persist even though the health consumer has now access to western medicine because the former is easily available, accessible and affordable to them as compared to the modern medicine. It is high time these value loaded traditional knowledge on tribal health should be documented.

Also there is a need to study scientifically the traditional tribal medicine and healing systems and combine them with modern allopathic system so as to make it available and affordable for the poor tribal population. All these taken together justifies commissioning of the present study to gather valuable information on the traditional treatment of health, medicinal and healing practices that are in vogue among the tribal.

1.6 Study Objectives:

The broad objective is to assess the extent of traditional healing practices among the tribal in Odisha. This will be documented in respect of the following parameters:

- To find out the perception of diseases, their indigenous typology and attributed causes and health status among the tribal communities
- To explore the knowledge of traditional healers versus the sources of medicine, process of their preparation, prescription, and style of application
- To enlist the community wise traditional healers, and their expertise and influence over their area of operation.
- To examine the efficacy of their treatment in addressing the present health problems.
- To prepare a community wise inventory of indigenous medicines and healing practices
- To enlist the gender specific diseases and their inter-ethnic dependency on healing practices.
- To study the magico-religious practices associated with the traditional healing practices
- To suggest for preservation and promotion of best traditional tribal medicines and healing practices of Odisha with special reference to its value addition and commercialization for improvement of tribal livelihood.

1.7 Research Methodology:

This study is the outcome from research covering 13 districts using research tools like qualitative observations and open ended qualitative and quantitative interviewing method, covering 16 selected tribal communities including 5 PTGs. The respondents, both males and females, were experienced local traditional healer, patients, community members and leaders, Government welfare and medical personnel. Extensive desk and library research has been done to substantiate the study findings to obtain a community specific and cross-community listing of sources of medicine, preparation process, method of prescription, application style with respect to different diseases in detail. Data collected from one locality has been cross-checked in another locality to ensure reliability.

1.8. Universe and Sampling:

The research covers a total of 13 districts. The villages are divided on the lines of operational boundaries of the collaborative organizations. Each collaborative organization covers a minimum of 2 to 4 tribal villages. The selection of the study villages are randomly done by the organizations keeping in view of the diversities in reaching out to more tribes.

Table 1.1: Tribe wise sample details

o	Tribal Dominant Districts	Tribal Communities and PTGs	Total No of Communities
1	Mayurbhanj, Sundargarh, Balasore, Rayagada and Nuapara	Santal, Oroan, Bhumij, Chuktia Bhunjia, Juang and Hill Khadia	6
2	Nawangpur, Malkangiri, Koraput and Gajpati	Gond, Koya, Gadaba, Bonda, and Lanjia Saora	5
3	Sambalpur, Keonjhar, Angul, and Kandhamal	Kisan, Dharua, Munda, Desia Kandha and Paudi Bhuyan	5
13 Districts		16 STs including 6 PTGs	16 ST Communities

The research covers as many as 16 tribes including 6 PTGs from 34 villages spread in 13 districts of Odisha. We have followed a stratified random sampling to select 592 respondents within the selected tribal communities. The stratifications were done with respect to the 146 local healers and 139 Magico-religious practitioners and their disciples, patients, local community leaders, PRI members and Ayush Doctors. The selections of sample have been purposive with respect to the stratification and the communities concerned.

Table 1.2 : Detailed tribe wise Sample size

Sl. No	Community	Name of the districts	Patients of		Local Healers	Magico Religious Leaders	Support Staff/ Helpers of		AWW/ ANM/ Teachers/ VLW/ Forest Guard	Comm-unity leaders	PRI Membe rs	Ayush Docto rs
			Local Healers	Magico Religious Leaders			Local Healers	Magico Religious Leaders				
1	Munda	Keonjhar	10	10	2	2	3	3	3	1	2	
2	Juang	Keonjhar	10	10	2	2	3	3	3	1	2	1
3	PaudiBhuya	Angul	12	8	2	2	3	3	3	1	2	
1	Oram	Sundargarh	12	8	2	2	3	1	3	1	2	
2	Bhumij	Balasore	19	1	2	2	3	1	3	1	2	1
3	Santala	Mayurbhanj	19	1	2	1	2	1	3	1	2	
4	Hill Khadia	Mayurbhanj	9	11	2	2	1	1	2	1	2	2
5	Kisan	Sambalpur	10	10	2	2	3	3	3	1	2	1
6	Chuktia Bhunija	Nuapada	10	10	2	2	3	2	3	1	2	1
7	Desia Kandha	Kandhamal	10	10	2	2	3	2	3	1	2	1
8	Gonda	Nabrangpur	10	10	2	2	3	3	3	1	2	1
9	Koya	Malkangiri	10	10	2	2	3	1	3	1	1	
1	Bonda	Malkangiri	10	10	2	2	3	2	3	1	2	
1	Gadba	Koraput	10	10	2	2	3	2	3	1	2	
1	LanjiaSoara	Gajpati	10	10	2	2	3	2	3	1	2	1
1	Dharua	Koraput	10	10	2	2	2	2	3	1	2	
To tal	16 STs	13 Districts	181	139	32	31	44	32	47	16	31	9

1.9 Reference Period:

The study was conducted during February and March in 2013 by 3 teams of researchers in all the places of tribal dominated districts. The study includes seasonality variation of medicinal plants so the data were also collected from the healers on medicinal plants used for different seasons. The study had information of all the months and periods in the year for the medicine man in the tribal areas.

1.10. Tools for data collection:

The study has adopted both primary and secondary sources for collection of data, however it has emphasized more on primary sources for data collection. For the data collection we prepared structured and semi structured schedules and open ended interview guides, with reference to different parameters to be assessed .the details of the schedules are follows:

Table 1.3 : Respondents and Methods				
Sl. No.	Name of Schedule (s)	Respondents	Aspects to be covered	Methods/Tools
1.	Village Schedule	Villagers of the study village	<ul style="list-style-type: none"> • Location, communication, community wise demography, institutions, settlement pattern & housing, economy & livelihood, community wise traditional occupations, inter-community relationship, traditional & modern health care functionaries, etc. 	Structured Interviews
2.	Patients Interview schedule	Patients	<ul style="list-style-type: none"> • Demography details • Diseases and health systems • Trend of healing practices and acceptability • Community wise Knowledge and experience of traditional healing medicines • Type of medicine, process of preparation, Prescription and application style for the patients • Magico-religious components • Opinion about the efficacy, accessibility & 	Exploratory Structured and semi-structured /open ended Interviews

			affordability of traditional versus modern medicine & preservation, value addition and promotion of traditional medicine as sustainable livelihood option	
3.	Healers schedule	Local Healers and Quacks Helpers/Support workers	<ul style="list-style-type: none"> • Diseases and health systems • Community wise Knowledge and practice by healers • Sources of medicine, process of preparation (both organic and inorganic), Prescription and application style for the patients • Magico-religious components • Opinion about the efficacy, accessibility & affordability of traditional versus modern medicine & preservation, value addition and promotion of traditional medicine as sustainable livelihood option 	Exploratory Structured and semi-structured / open ended Interviews
4.	Village level leaders & functionaries Schedule	AWW/ANM/ Teachers/VLW/ VHW/ASHA/ Forest Guard Community leaders, PRI leaders, SHG groups	<ul style="list-style-type: none"> • Diseases and health systems • Trend of healing practices and acceptability • Community wise Knowledge and practice by healers • Sources of medicine, process of preparation (both organic and inorganic), Prescription and application style for the patients • Magico-religious components • Opinion about the efficacy, accessibility & affordability of traditional versus modern medicine & preservation, value addition and promotion of traditional medicine as sustainable livelihood option 	Exploratory Semi-structured / open ended Interviews
5.	Expert Interview	AYUSH Doctors	<ul style="list-style-type: none"> • Trend of healing practices and acceptability • Sources of medicine, process of preparation (both organic and inorganic), Prescription and application style for the patients • Magico-religious components • Opinion about the efficacy, accessibility & affordability of traditional versus modern medicine & preservation, value addition and promotion of traditional medicine as sustainable livelihood option 	Exploratory Structured and structured / open ended Interviews

11. Duration of the study:

The study was accomplished in the year 2013. The duration of the study was 9 months. It took more than six months to collect relevant data from different tribal communities spread over the different parts of the state.. The data collection involved different people from that community to discussion and records their opinions.

1.12 Research Personnel:

The research Team was headed by Dr. L.K. Vaswani, Director, KSRM. More than 10 investigator and super visor were engaged for the data collection activities in the field. (The name and their designation are given in ANNEXURE-1)

1.13 Output deliverables:

The study broadly covered the details on the people's perception of diseases, their indigenous typology and attributed causes of sickness and health deterioration among the tribal communities. Further, it discusses the knowledge on traditional healers vis-à-vis the sources of medicine of their preparation, prescription, and application style in addressing the present health problems including the gender specific diseases and their inter-ethnic dependency on healing practices and the community wise traditional healers, and their expertise across geographical area in Odisha. Besides, among the deliverables also includes suggested safeguard of best practices for enlistment of tribal community in Odisha. Providing photographs on the traditional healing, herbs and healers along with other recorded details are additional to the deliverables.

1.14 Scope and limitations:

- This study shows that knowledge and usage of herbal medicine for the treatment of various ailments among tribes is still a major part of their life and culture. Cultural and biological biodiversity are intimately and inextricably linked. The indigenous phototherapy of tribes can provide a useful alternative to conventional human health care. Traditional knowledge system is important for modern societies, not only because traditional knowledge itself is a valuable aspect of cultural heritage and should be

protected in its own right, but also because of its great value in modern development, especially regarding the sustainable use of forests, ecosystem services and management. It is an urgent task to record the posterity, whatever is valuable in the tradition of the tribes, their way of life and their knowledge of the plants before all these disappear.

- Paucity of time and fund constraint did not permit the research team to collect additional data on seasonality of diseases and their treatment among all 16 selected ST communities proposed to be covered under the study round the year.
- In the study areas, like Keonjhar and Mayurbhanj districts the magico-religious data could not be collected properly due to law and order situation in the study areas. As such the tribal respondents could not cooperate in data collection due to police fear.
- The assessment of nutritional status among the STs has been newly included in the coverage of the study by utilizing the secondary source data as suggested by the Technical Committee.
- The study could not be completed in time as it require more time for Field investigation for data collection due to preoccupation of different respondents.
- The sample area of the study spread to 16 districts instead of the proposed 11 districts because data were not available in the sample of 11 districts.

.....

CHAPTER II

LITERATURE REVIEW

This chapter covers a review of earlier literature on tribal medicine, belief system and health practices found across the World with special focus on India and Odisha context. This review of literatures is a significant part of this research study as it discusses findings of different earlier studies with a view to support the present research study. Here reviewing the literature aims at placing this study in an historical perspective and to relate its findings to previous knowledge and suggest further research. It covers everything relevant that is written on the topic: books, journal and newspaper articles, historical records, government reports, theses and dissertations, etc. It would provide an overview of the field of inquiry: what has already been said on the subject.

The study of folk medicine or tribal medicine has a conspicuous background throughout different countries of the world. In Europe the study on the interrelationship of magic and medicine was initiated by Frazer. He compiled diversified data from the different countries of the world and showed that magical procedures had a great role in the life of the primitive tribal people trying incessantly to ward off the evil influence of diseases. Following this lead a good many scholars, like Thurston (1907), Krishna Iyar (1941) and Elwin (1955) worked on this particular subject matter and as a result of which there developed broad – based literature on the primitive medicine system.

Thurston (1907) described the beliefs in connection with charms, magical spells, witchcrafts and sorcery for curing diseases and protecting people from evil spirits. While discussing the religious belief of the Travancore tribes Krishna Iyar (1941) mentioned briefly about their medicine man that cures all their ailments and is practitioner of magic. He says that propitiation of gods is intended to restore man's confidence when shaken by crises like accidents and diseases.

With respect to archeological factor Saunder (1954) recognized three types of causation: empirical, magical and psychological. Empirical or natural diseases are those in which a known external factor lie outside the realm of empirical knowledge and cannot be thus verified, psychological diseases are those in which a strong emotional experience causes the appearance of disease symptoms.

Dolly Florence Murmu (1966) offers an insider view of medicinal plants being used in the tribal world view of plants connotes deep meaning that the people attach to the medicines need to be experimentally validated and useful herbal perceptions should be promoted and marketed for income generations. She suggests formation of tribal market with the stakeholder-ship of community as cooperatives so that the benefits could come back to the tribal.

Buddhabeb Choudhary (1971) has examined traditional tribal medicine and treatment in India in the context of globalization process, because of important implication of traditional knowledge and skill have been neglected and a perjure has been engineered and encouraged by traditional powerful nationals and multi nationals. He put forth a six fold strategy to meet this challenge so that good health may be delivered to the tribal, being fully conscious of the limitations of traditional knowledge and wisdom of this regard.

R.K. Kar (1972) presents the case of ethno medicines in the context of northeastern tribes of India, which is bestowed with around eight per cent of world's total biodiversity is perceived as hot spot and therefore the 7500 medicinal plant species that India has are very precious resources. The North- East wet forest area with its rich biodiversity and traditional knowledge of medicinal plants use is going to play a very important role in the field of herbal medicines. Kar presets panoramic view of the plants use for various diseases by the tribal community.

Vijayendra and Bhat present the system of ethno medicines among the Jenukuruba of Karnataka. This tribe classifies illness into four major categories and has immense knowledge of the plant medicines. The general pattern of mistrust and suspicion, according to authors is also reflected in the ethno medicines.

Foster (1976) in his concept on diseases etiologies in non-western medical systems identified two principal etiologies- personality and naturalistic. A personality medical system is one in which disease is explained as due to active purposeful intervention of an agent who may be human, non human or super natural. In contrast to the personality systems, naturalistic systems explained illness from such “natural forces or conditions” as cold, heat, wind, dampness and above all by an upset- in the balance of the basic body elements.

Traditional or local medicine still remains an important source of medical care in the developing countries even though it is not officially recognized by the government health care programs (Jaspan, 1969; Kleinman, 1980). It persists in urban as well as rural settings despite the availability of allopathic health services. Studies have shown, however, that its general persistence is decreasing in importance over generations, particularly among socially isolated nuclear families. In traditional medical systems worldwide, afflictions that beset body and mind can be explained in both naturalistic and super naturalistic terms. When a wound does not heal, when a sickness does not respond to treatment, and when the normally expected and predictable does not happen, other explanations beyond the organic are sought (Scheper-Hughes, 1978).

Ignore (1984) discussed how some healers in Madras established a special relationship with the deities and functions as the vehicles of their power. It is found that during the healing sessions the deities will speak through the servant to each patient and supernatural power acting through the healer will cure the illnesses. In his study of health and ethno-medicine of some tribes of Kerala, Viswanath Nair (1985,1987) gives much health is affected by the disturbances in the habitat and alien culture contact. The study indicates the tribal communities whose natural habitat remains relatively undisturbed use more herbal medicine than those whose habitats are disturbed.

Guha (1986) presented descriptive account of folk medicine of the Boro tribes of Assam. After giving the details of the etiology, diagnosis, treatment of prophylactic measures of disease, he makes an analysis of the modern medicine upon the traditional one. Bhattachraya and Sengupta (1986) observed that the general concept of disease among the Birhor hills at intra-social hostility and a high degree of insecurity owing activities of the spirits. So they pay much importance to community cohesion and propitiation of spirits in order to prevent diseases.

Reddy (1987) analyzed the problems involved in the implementation of modern medicine among the tribal people. He suggested that a thorough knowledge of indigenous medial beliefs and practices and different cultural values attached to them has to be acquired and then modern medicine has to be introduced in a phased manner side by side with the native medicines. In his study, Ramesh Menon (1988) explained how the tribes of Arunanchal Pradesh attributed every diseases or misfortunate to a particular evil spirit. He found that patients suffering from psychometric ailments respond favorably to their Shaman's treatment.

After conducting an ethnological survey among the thirty five tribal communities of Madhya Pradesh, Joseph (1989) brought out the role played by reptiles in tribal medicine. He found that the traditional medical system is economical and without any side effect.

Indera P. Singh (1988) in his article, 'Anthropological strategies of Tribal Health', inferred that in order to live a socially and economical productive life, health is man's natural condition and is the result of living in accordance with natural laws pertaining to the body, mind and environment. He finally concluded that the need for collaboration of the traditional medical practitioners with a notional health system has been found to be necessary and an attempt is being made now in India to integrate the traditional medicine systems with the modern. This is essential in tribal areas which are mostly inaccessible and lack communications. This should include Ayurveda, Siddha, and/or Unani, and non – formalized traditional systems of medicine practiced by herbalists, bone setters, home remedies, spiritualists, yoga, nature cure, homoeopathy.

John Bryant (1988) sees the involvement of the individual and the local community in primary health care not as a social nicety; rather as a medical necessity. But services that are delivered from the outside have little effect unless absorbed by the individual and the

community. It has been revealed that the diverse and deep-rooted social and cultural phenomenon of a society play important and many a time decisive role in deciding acceptance or non-acceptance of particular health care option.

Sachchidananda (1994) sees the field of tribal health aspects as a cultural concept as well as a part of social structure and organization which is continuously changing and adapting itself to changes in the wider society. It is a faith, prevailing among tribes that diseases are caused by supernatural agencies. Broadly, the tribal people believe in four types of super-natural powers. These are (1) protective spirits who always protect them; (2) benevolent spirits who are worshiped at the community and familial level regularly, otherwise they may bring diseases or death; (3) malevolent spirits – the evil spirits who control smallpox, fever, abortion, etc. and (4) Ancestral spirits, the spirits of their ancestors and always protect them.

Singh (1994) indicates nine factors to examine and assess the tribal health situation in India. He highlights the effect of changing physical environment on tribal health, which is ultimately related to their economic pursuits, nutritional availability, medicines etc. It has also been emphasized that ecology and tribal health is intimately related.

Prof V. Rami Reddy (1995) in his article, 'Tribal Health, Social – Cultural and Biological', mentioned that the tribal societies have their own concept of diseases and its treatment ranging from supernatural remedies, cauterization, inoculation, spells, prayers, manual rites, and dances and so on. These psychotherapeutic methods of healing are carried out not only through individual members but also by the involvement of the entire community. So a thorough knowledge of the indigenous medical beliefs and practices and the different cultural values attached to them has to be acquired and then the modern medicine has to be introduced in a phased manner side by side with the native medicines traditionally rooted in magic, mythology, legend, religion and morality.

Jagga and others (1996) have found that belief in spirits and deities are Prevalent among the most of the tribal population in west Godavari district of Andhra Pradesh. This leads for

seeking curative measures from traditional healers. The authors also show that the people are in transition and realize the changing situation in their environment, culture and food habit etc, for which, they believe, the traditional treatment system is losing its credentials

A.P. Singh (1998) presents the scenario of Uttarakhand tribal ethno-medicines highlighting the role of “Witch doctor” or “traditional healers”. He advocates that there is a need to train witch doctors in to scientific use of indigenous pharmacopeia. The paper by D. Chao, N.K. Chadha and P.C. Joshi covers the psychological well being of elderly belonging to Naga Tribe. Gerontological studies in India have largely confined themselves to the urban and rural areas and no study of any consequence has been reported from tribal perspectives. The study, which is based on quantitative and qualitative study of 200 elderly Naga has touched upon indicators such as deprivation, liveliness, happiness, health, awareness, disability in daily activities, adjustments, leisure activities, self related quality of life and social network in order to cover the sex differences. The common beliefs among the scholars has been that the elderly are living a better quality of life as tribal subscribe to traditional values. The impact of changing trends when the tribal culture is influence required to be studied in respect to tribal areas.

Healthcare practices of various tribes inhabiting Manipur have been the concern of Hemlata and Krishna Kumari’s (1999) paper. The authors have found the tribal system of medicines in Manipur is largely magico-religious under which tribal subscribe to Myride supernatural agencies through the healer and perform a wide variety of rituals and sacrifices in order to participate the angry spirits. The excessive dependence on supernatural form of treatment, according to authors is primarily due to easy accessibility and may be of any alternative. The Gaddi of Himachal Pradesh are transhumance criss-crossing the Himachal mountains with their animals in different seasons. Their healing practices have been highlighted by Sonia Kaushal which relies very heavily on supernatural theory of disease causation and treatment. The Gaddi world view is full of different benevolent and malevolent supernatural forces such as Kailang, Gunga, Jogni, Rakshanis, Banasat, Chungu, Naags, sidhs, devis, Birs, etc.

A.K. Srivastava (2000) in his article “Road Map For Tribal Medicines” points out that of the 1500 medicinal plants, Indian systems of medicine have identified use of over 7500 species of plant for preservative, primitive and curative application and that the tribal specifically have vast knowledge about the medicinal characteristics of plants in and around dense forests, especially the tribal belts, particularly because of callous-exploitation of the tribal herbal wealth of India.

Devi’s (2003) study among the Meitis of Manipur reveals that though the people are educated enough, the concept of deities and their effect on human health are widely prevalent among them. The author, in details, describes the ill effect of the deity Hingchabi and the treatment offered by traditional healer Maiba. She shows how effective is the use of medicinal herbs along with beliefs to heal an ill person influenced by the deity.

Bhasin’s (2004) study among the Ladakhis shows a blend of health care involvement. She finds that in case of serious illness people tend to attend modern health care facilities. But in many cases accessibility of such facilities do not confirm people’s acceptance of modern health care system. People invariably believe in spirit and other supernatural beings as causes of disease and priority of treatment inclined mostly towards traditional healers.

Bhasin’s (2004) another study deals with the causes of underutilization of Biomedicines among the tribal women of Rajasthan in treating sexually transmitted infection (STI) diseases, locally called Sujak. They attribute Sujak to the evil effect of matron, a spirit that evolves when a pregnant woman dies. The author finds that when the women see a modern health care provider in case of other diseases, STI diseases are closely guarded and treated with the traditional healers. This certainly shows their cultural attributes attached to the concept of health and diseases.

Nagda (2004) shows that among the tribal people of Rajasthan, illness and consequent treatment is not always an individual or familial affair. At times the whole village or the community may be perceived as affected by such diseases and healing must be done at community level. Such perception shows the integrity and responsibility of entire community

towards an individual or family and vis-à-vis which is defined by existing culture. In such cases modern system has nothing to do in treatment.

Jain and Agrawal's (2005) study shows that the Bhills in Udaipur, Rajasthan, attribute disease to the act of deities and spirits of various kind and by appeasing them, they believe, disease may be healed. They depend on Bhopa (traditional healers), herbalist and Dais for cure of disease. The same study shows that people are, to a great extent, inclined towards modern health care system too, without ignoring the traditional system.

Ray and Sharma (2005) have given a description of ethno-medicinal beliefs and practices prevalent among the Savaras, a tribal community of Andhra Pradesh. Kumari (2006) gave an account on the concept of illness and disease and the application of folk medicine among the Sauras of Jharkhand.

Pramukh and Palkumar's (2006) study shows that the tribal groups namely, the Savaras, Bogatha, Konda Dora, Valmiki, Koya, Konda Reddi etc. believe in the power of prayers and rituals that enables some herbs to act as medicines to heal diseases among them. They attribute diseases to certain deviant acts of self and others towards elders, nature, and divine rules. Thus, their first priority is to get spiritual cure in a traditional way.

Guite and Acharya (2006) have shown that the acceptance of a particular health care system among the tribal people mostly depends on its availability and accessibility. It is interesting to note that while the tribal groups following traditional religion use traditional medicines putting religious or supernatural value on it, the converted Christian tribes use the same medicine excluding its religious tune. The study reveals that education has been able to heal the traditional inhibition of tribal people to attend PHCs without ignoring the importance of traditional healing practices.

Shankar (2007) has also highlighted that a section of the rural people in all social classes, including the poor are giving up traditional health practices and turning to western bio-medicine. For the rural poor, this replacement of tradition has serious economic consequences and socio-

economic surveys indicate that the single and largest cause of rural indebtedness is health expenditure.

Prasad (2007) draws attention to the choice of traditional treatment among the poor which is restricted and limited by a variety of factors such as affordability, accessibility and social distance. Despite all factors, the tribal are still using traditional medicines though the prevalence of these medicines is waning.

In his studies Panda, Kumar and Mishra (2009), among three ethnic group Lepcha, Bhutia, and Nepalis of Sikkim shows their practicing traditional medicine have a strong belief on different natural forces and deities. He found that all three communities have an own system of beliefs, and medical ailments, though they have more or less similarity with each other. The study shows a declined trend of new generation to adopt this practice as profession. There is a greatest challenge to revitalize the traditional health and to promote folk medicine in rural poor people of Sikkim for their Primary Healthcare.

In the context of tribals of Odisha the studies on ethno-medicines and tribal tradition of health seeking behavior and healing practices can be traced from the early writings of Elwin (1955) on Saora, followed by studies of Alli' on health status of PTGs, like Pauri Bhuiyans and Kutia Kondhs (1983), Dash on concept of illness and magical treatment among Paraja (1986), Sahoo on health and nutritional status of Juang children (1998), Pattanaik on healing practices among Santal (1992), SCSTRTI on Tribal Medicine and Medicinemen among Bonda and Didayi (1997), etc. the findings of these studies have much relevance to this study as they would provide basic information on the concept and cause of illness, belief and practices in respect of treatments of diseases for cure as well as suggestion for way forward.

Elwin (1955) studied the religious life, ethno medicine, and culture of Saora tribe of Odisha. He said that the etiology of illness among the Saora is based on supernatural beliefs. According to them all the diseases originates due to the worth of the gods, dead ancestors and sorcerers. They identify no natural causes for the occurrence of diseases. Offering sacrifices to the supernatural and thus appeasing their anger is the only remedy for illness. The Saora theory of the origin of diseases suggests that the gods and dead ancestors have to make a living

somehow and the only way they can do so by forcing human being to support them through sacrifices and other offering. In many cases the only thing a Saora can say about a god is to name the disease he gives.

Dr. Almas Ali (1983) studied the health status of P.T.G of Odisha and found that the health and sanitation both the Kutia Kondhs and Pauri Bhuiyans are very backward; also found Kutia Kondhs had indigestion and irritation in stomach. His major findings among Pauri Bhuiyans, the genetic diseases like sickle cell and G6PD deficiencies are absent.

According to Dash (1986), the basic concept of illness among the Paraja of Odisha, is explained by magico-religious beliefs. However, besides the magico-religious treatments of the diseases, the herbal therapy is also very much prevalent among them. Sahoo (1998) studied the health and nutritional status of Juang children by taking anthropometric measurement and found that Juang children are in the state of malnutrition and the community is highly susceptible to malaria. Pattanaik (1992) studied the healing practices among Santal; he presented that Santal tribes used elements i.e. water, soil and fire in healing practices. Swain (1993) studied the method of preparation and restriction of traditional medicine among Oraon and Munda tribes. Mohanty and Maharana studied the medicine man and their preparation, use and administration of traditional medicine of Saora tribes of Odisha.

Exploratory studies of SCSTRTI (1997) among the Bondo and Didayi of Koraput district and study of 86 tribal medicine men from 11 STs such as Bathudi, Bhuyan, Bhattoda, Gond, Holva, Kandha, Kisan, Kolha, Omanatya and Sabar

The study of Kabikanya and Dash (2003) has reported on the Bhumija Perception of Health and Health Care System in a unique socio-cultural system of Jajpur District of Odisha and suggested that there is an urgent need for documentation of their traditional knowledge.

In another study, Dash and Dash (2003) have observed that although a large number of plants are associated with food, economy and religion, the use of plant species as traditional medicines are dominant in the entire tribal society. The state has one of the oldest and richest cultural traditions of using medicinal plants. The tribal people of the state still depend on the common traditional ethno-medicine for their day to day primary health care. These medicinal

plants gain further importance in the region where modern health facilities are either not available or not easily accessible.

The work, *Encyclopedia of Scheduled Tribes in India*, of Mohanty (2006) besides conferring the sociological, anthropological, ethnological, historical and cultural facts of all most all STs of Odisha, estimates their health status including the extent of malnutrition, disease profiles along with the health related customs and practices. It has much relevance in the context of what he observed among the health profiles of STs of Odisha to be compared and analyzed with the findings of this study on the traditional health behavior

The tribal traditional knowledge on ethno medicines is being diluted and diminishing day by day which warrants collection and documentation before this valuable knowledge is lost forever. Revealing this ground reality, the study by (Behera, Panda, & Misra, 2006: 519-528) documented ethno medicinal information on use of 98 plant species under 93 genus and 59 families against 127 ailments of the Kandha tribe of Kandhamal district of Odisha in the Eastern Ghats of India. Majority of Kandha people is still using the traditional medicines for treatment of various ailments. All these traditional medicinal knowledge are present only in oral form and are transmitted from generation to generation.

In his study, *Ethno medicinal practice of Kol tribes of Similipal Biosphere reserve, Odisha, India*, Rout and Thatoi (2009), shows that ethno medicinal uses of 32 potential medicinal plants belong to 24 families of medicinal plants used for ailment of various diseases like leucorrhoea, spermatorrhea, piles, sore throat, rheumatism, elephantiasis etc. by Kol tribe living in some villages situated in and around Similipal Biosphere Reserve.

Das (2013:34) in his study assesses poor health status and impressive dependency (54%) on tribal medicine and health care among 4 STs in Jajpur district and suggests community participation in the health care planning and mutual interaction between the service providers and beneficiaries for success of development programmes related to health among the tribal communities.

The review of literature revealed that the majority of the tribal population prefers the traditional, culture – rooted cures of their own indigenous healers. The various factors for their situation were enumerated as cultural acceptability, low cost, easy accessibility, elaborate patient – healer interaction, culturally ordained curative modes, tremendous trust in healer's prowess,

healer is life – long friend and ally, long – term family association, healer’s cures encompass the entire homestead. The review also showed that all most all facets of tribal life are changing due to contact with alien cultures and that the socio-political atmosphere of the country has accelerated this process of change.

This review of literature helps generate the following propositions which may help guide further studies on ethno-medicines and tribal traditional medicinal practices including the present one.

Cultural attributes

- Tribes attributed every diseases or misfortunate to a particular evil spirit pointing at supernatural theory of disease causation and treatment.
- When the women see a modern health care provider in case of other diseases, STI diseases are closely guarded and treated with the traditional healers. This certainly shows their cultural attributes attached to the concept of health and diseases.
- At times the whole village or the community may be perceived as affected by such diseases and healing must be done at community level.

Cause of illness

- People invariably believe in spirit and other supernatural beings as causes of disease.
- All the diseases originate due to the worth of the gods, dead ancestors and sorcerers.

Traditional treatments and reasons

- Offering sacrifices to the supernatural and thus appeasing their anger is the only remedy for illness.
- The magico-religious treatments of the diseases and the herbal therapy are also very much prevalent among them.
- Priority of treatment inclined mostly towards traditional healers.
- That the traditional medical system is economical and without any side effect.
- Propitiation of gods is intended to restore man’s confidence when shaken by crises, like accidents and diseases.

Challenge

- The tribal traditional knowledge on ethno medicines is being diluted and diminishing day by day.
- Tribal communities whose natural habitat remains relatively undisturbed use more herbal medicine than those whose habitats are disturbed.
- General concept of disease among the tribes hints at intra-social hostility and a high degree of insecurity owing activities of the spirits.
- In case of serious illness people tend to attend modern health care facilities.
- There is a greatest challenge to revitalize the traditional health and to promote folk medicine in rural poor people for their Primary Healthcare.

Adoption & Changes

- As a cultural concept as well as a part of social structure and organization which is continuously changing and adapting itself to changes in the wider society.
- Diverse and deep-rooted social and cultural phenomenon of a society play important and many a time decisive role in deciding acceptance or non-acceptance of particular health care option.
- Ecology and tribal health is intimately related. These medicinal plants gain further importance in the region where modern health facilities are either not available or not easily accessible.
- Tribal people are, to a great extent, inclined towards modern health care system too, without ignoring the traditional system.
- The study shows a declined trend of new generation to adopt traditional treatment system this practice, which is losing its credentials, as profession.

Prospects and way forward

- Formation of tribal market with the stakeholder-ship of community as cooperatives so that the benefits could come back to the tribal.
- Strategy to meet this challenge of globalization so that good health may be delivered to the tribal, being fully conscious of the limitations of traditional knowledge and wisdom of this regard.
- Forest area with its rich biodiversity and traditional knowledge of medicinal plants use is going to play a very important role in the field of herbal medicines.

Suggestions

- Thorough knowledge of indigenous medical beliefs and practices and different cultural values attached to them has to be acquired and then modern medicine has to be introduced in a phased manner side by side with the native medicines traditionally rooted in magic, mythology, legend, religion and morality.
- In inaccessible tribal areas which lack communications, there is a need for collaboration/ integration of the traditional medicine systems (traditional medical practitioners) with the modern notional health system.
- The impact of changing trends when the tribal culture is influenced required to be studied in respect to tribal areas.
- There is a need to train witch doctors/traditional healers on scientific use of indigenous pharmacopeia.
- Medicinal plants being used by the tribal healers need to be experimented and validated and useful herbal perceptions should be promoted and marketed for income generations through the formation of tribal market with the stakeholder-ship of tribal community as cooperatives so that the benefits could come back to the tribal.

CHAPTER-III

AREA & PEOPLE

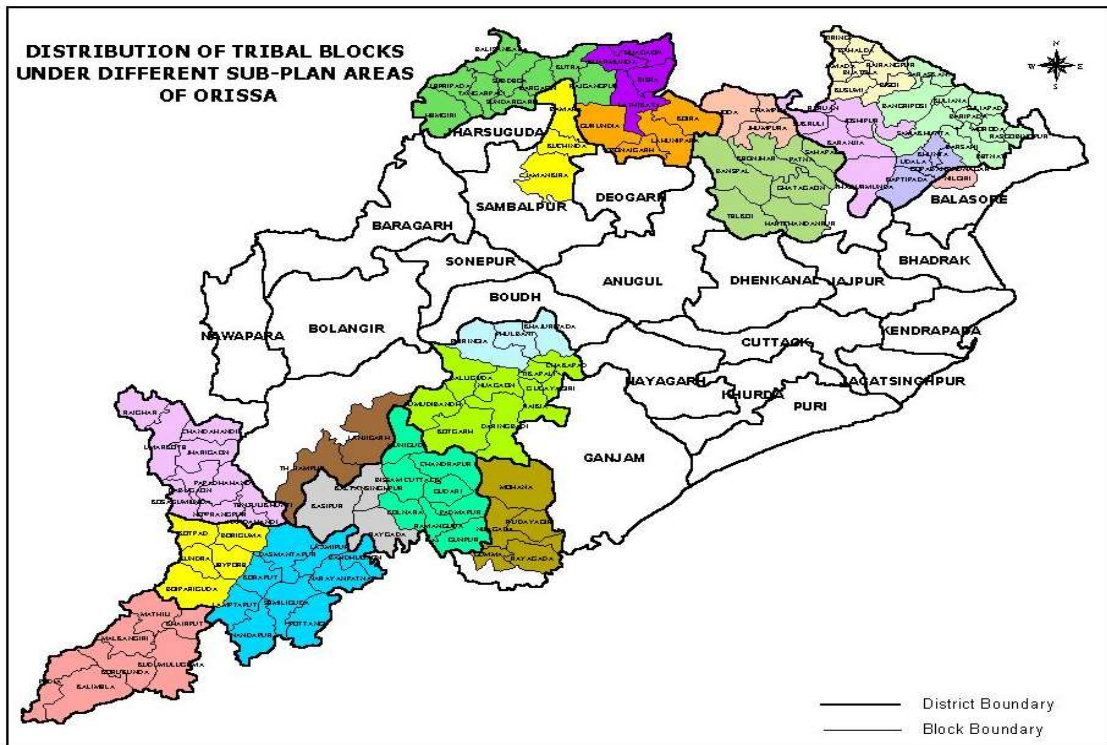
3.1 Geographical location:

The homeland of the tribal's constitutes a significant part of the under developed areas of state. The tribal mostly live in isolated villages or hamlets. The STs of Odisha are concentrated in two belts. The northern belt comprises the districts of Mayurbhanj, Keonjhar and Sundergarh, and the southern belt consists of districts of undivided Koraput, Ganjam and Khandhamal districts. The scheduled areas in the state of Odisha comprises the whole districts of Mayurbhanj, Sundergarh and undevided Koraput, Khandhamal and part districts like Keonjhar (Kuchinda, Champua, and Barbil tahasils), Ganjam (G. Udayagiri tahasil excluding Gazalbadi and Gochha Gram

panchayat), Kalahandi (Thuamul-Rampur block and Langigarh block) and Baleswar (Nilagiri block).

A major portion of tribal habitat is hilly and forested. Tribals villages are generally found areas away from the alluvial plains close to rivers; most villages are often not planned at all. The following two maps give a picture of the geographical location of STs of Odisha in general and PTGs in particular.

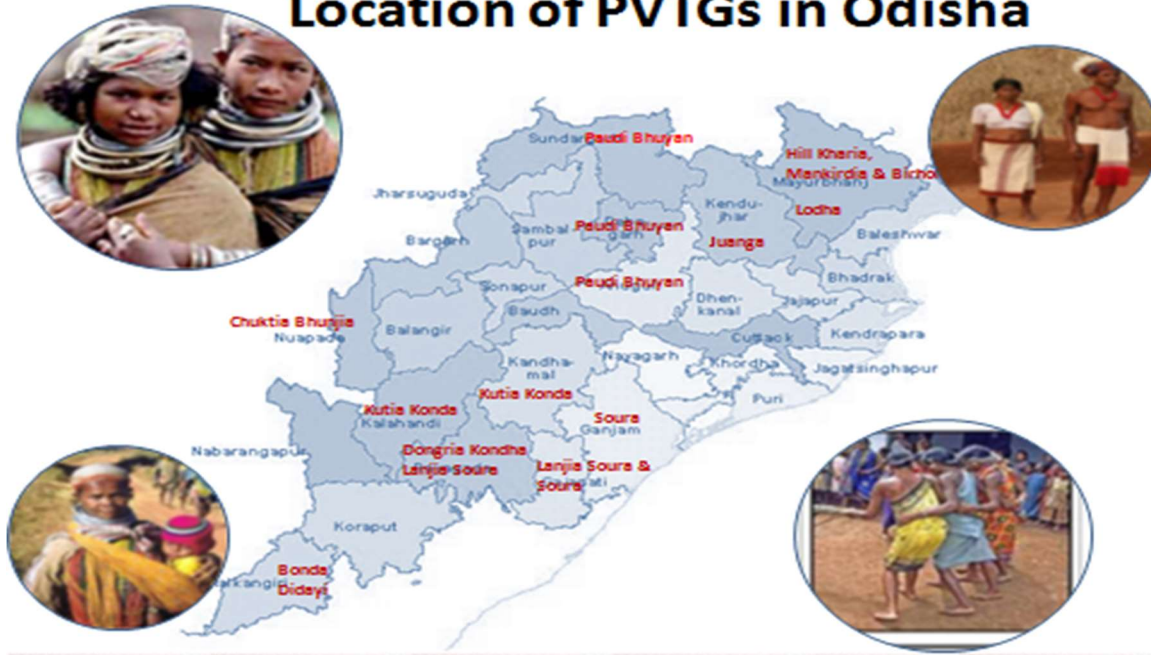
Map of Odisha showing tribal and scheduled areas areas:



Source: SCSTRTI, Bhubaneswar

Map of Odisha showing location of PTGs areas:

Location of PVTGs in Odisha



Source: SCSTRTI, Bhubaneswar

3.2 Communication:

Road communication is the major means for movement in many parts of tribal concentrated districts of Odisha and as few of them have the facility for communicating through rail.

3.3 & 3.4 Topography, climate, flora and fauna and ecology and environment of concern tribal districts of Odisha:

The East Indian state, Odisha encompasses a net area of 1, 55, 707 Sq. km which hugs the voluminous shores of the Bay of Bengal with a coastline that stretches for about 450 km. The state is enclosed between the states of Andhra Pradesh, Madhya Pradesh, West Bengal and Bihar and stretches across the latitudinal parallels extending between 17°49' North and 22°34' North and the longitudinal meridian that spans between 81°27' East and 87°29' East. The region is subject to a tropical climate that is depicted by searing hot summers, pouring monsoon rains and pleasant winters. The voluminous seas and the hilly terrains of the Eastern Ghats play a pivotal role in shaping the weather of Odisha. Consequently, the coastal zone is subjected to mild and pleasant climatic conditions while the Eastern Ghats are much cooler.

Geographically, the study areas mainly cover Eastern Ghats region in Odisha. The diversified ecological niches and environmental situation provide habitat for rich fauna. Eastern Ghats is home to largest number of Asiatic elephants in the world. Other large animals such as

Nilgiri Tahr, Leopards, Gaurs, Sambar, and tigers abound the landscape. Apart from this, these Ghats are known for the wide variety of birds species. As a traveller you would be able to explore other wildlife sanctuaries and national parks in the eastern ghats such as the Simlipal National Park, Baissipalli Wildlife Sanctuary, Satkoshia Gorge Sanctuary and many more. Eastern ghats also holds the rich floral system. It is region where you may find large number of medicinal plants. The breakup of topography, climate, flora and fauna and ecology and environment of the study districts is as follows.

Mayurbhanj district

Out of the total cultivable area of 4,47,214 hectares of Mayurbhanj District, 1,95,441 hectares (around 43.7 percent) constitute high land, 1,24,730 hectares (nearly 27.9 percent) medium land and 27043 hectares (28.4 percent) low land. The district is 559.31 metres above the sea level. The soil is generally acidic in reaction. The soil types noticed are sandy loam and Lateritic, light textured with low water retentive capacity. The study district of Mayurbhanj experiences a sub-tropical climate. An oppressive hot and humid summer followed by the monsoon between June and November. A severe cold winter characterizes the general climate of Mayurbhanj. May is the hottest month when the mean daily maximum temperature rises up to 47° celsius. December is usually the coldest month of the year when the mean daily minimum temperature dips to 4° celsius. The higher reaches of the Similipal experiences frosting during the peak of winter.

The central part of Mayurbhanj District is covered by a group of hills known as the Similipal Range and the remaining portion is covered by undulating plains raising and falling in gentle slopes. The district is mainly covered by a group of hills; the percentage of plain lands is quite lower in comparison to other lands. As the area is mainly undulating except along the few rivers and as it comprises ridges, slopes and depressions the agricultural lands are mostly terraced to catch the surface drainage coming from the uplands. Precisely the district may be divided into three distinct natural divisions. The central hill ranges divide the plains of the district into two halves eastern and western. The Eastern Division, which slopes gently from the foot of the hills towards the sea, is served by a number of hill streams forming an ideal land for cultivation comprising Baripada and Kaptipada sub-divisions. The western division is mainly a

plain rising and falling in gentle slopes studded with many rocky mounds and hills. The northern portion of this western division is very fertile for extensive cultivation.

Stretches of leafy green forest served with a network of perennial streams and its refreshing climate contribute so much to make the district an ideal habitat for tropical flora and fauna. Valuable forest growth which includes trees, like Sal, Piasal, Teak, Asan, Mahua, Bamboo and other indigenous species provide tremendous developmental potential for exploration and harness to the benefit of the local people. The typical red soil of the district is highly conducive for growth of sabai grass, which is almost a household activity and cottage industry supplementing to the household income of the rural people. The varied range of natural forest products like resin, bamboo, sal and siali leaves, mohua flowers, orchids, medicinal plants and herbs hold a great promise of employment for the future. Reservation and protection of forest requires intensive measures in view of the increasing population and ecological balance. Forty – three percent (439, 000ha) of the geographical area of the district comprises of forest.

The famous Similipal National Park & Sanctuary is a tiger reserve located in the district. It covers an area of 2750 Sq km with a core area of 845.70 Sq km. As per the tiger census of 2002, there are 99 tigers & 126 leopards in the Similipal tiger reserve, which constitute 57 % and 28 % of the tiger and leopard population in the State. Besides, there are 432 elephants in Similipal National Park constituting 23.65 % of the elephants in the entire state as per 1999 elephant census. There has been a felt demand for on farm forestry to meet growing need of fuel and wood for other domestic purpose.

The livestock sector is closely associated with agriculture and it plays an important role in the district economy in terms of income and employment. It is the most important occupation subsidiary to cultivation among small and marginal farmers, women and landless agricultural labourers. Most of the people in the rural areas rear live stock and poultry. Though there is a good potential for dairy farming, which has not been fully exploited. Against the ICMR recommendation of 250 grams per capita consumption per day, use of milk in the district is 22 grams, which is less than half of the state consumption of 47 grams - the national consumption level per day being 214 grams. There is, therefore, the need & scope to develop diary activities in the district.

Sundargarh district

Geographically, Sundargarh district consists of widely dissimilar tracts of expansive and fairly open country dotted with tree-clad isolated peaks, vast inaccessible forests, extensive river valleys and mountainous terrains. The region of Sundargarh district is an undulating tableland of different elevations broken up by rugged hill ranges and cut up by torrential hill streams and the rivers Ib (major tributary of Mahanadi River) and Brahmani. Because of this undulating, hilly and sloping nature of landscape, the area is subject to rapid runoff leading not only to soil erosion but also to scarcity of water for both agriculture and drinking purpose. Alluvial soil and Lateritic soils are mainly found in the district. There is an open well-cultivated plain country along the valley of the Ib River particularly in the south. The rest of the Sadar sub-division consists of undulating table-land about 700 feet in average height, dotted here and there with hills and peaks rising to about 2000 feet. The portion occupied by Bonai sub-division to the south-east has rugged forest and hills intersected by gorges and passes and having a narrow valley of the Brahmani River and its tributaries. The east and west of the Brahmani valley is filled with high range of mountains.

The forest of Sundargarh district is of northern tropical dry deciduous type, mainly containing Sal, Assan and Kurum. The forest area is mostly studded with rich mineral deposits, like iron manganese limestone, lead; also forest products like bamboo timber and kendu leaf which are export-oriented. The forests occupy an area of 3534.92 sq. kms which includes 2664.64 sq. kms under reserved forest and 612.07 sq. kms under protected forest. The fauna available in these districts are cattle, buffalo, goat, sheep, pig and milch animal.

Balasore district

Broadly, Balasore district can be divided into three geographical regions, namely, the Coastal belt, the inner alluvial plain and the North-Western hills. The coastal belt is about 26 kilometres

wide and shapes like a strip. In this region, sand dunes are noticed along the coast with some ridges. This region is mostly flooded with brackish water of estuarine rivers which is unsuitable for cultivation. The second adjacent geographical region is deltaic alluvial plain. It is a wide stretch of highly fertile and irrigated land. This area is highly populous and devoid of any forests. The third region is mostly hilly terrain and vegetated with tropical semi-ever green forest. Balasore, the coastal district of Orissa is crisscrossed with perennial and estuarine rivers because of its proximity to sea. The irrigation system in Balasore district is quite extensive. The soil of Balasore district is mostly alluvial laterite. The soil of Central region is mostly clay, clay loam and sandy loam which is very fertile for paddy and other farm produces. Moreover, a small strip of saline soil is also seen along the extreme coastal part of the district.

The climate of Balasore District is mostly hot and humid. The hot season starts from March till May and followed by rainy season from June to September. During this period, south-west monsoon causes maximum rain. But the district experiences highest rain fall during July and August. Because of its strategic location, this district faces most of the cyclonic storm and depression which is raised from Bay of Bengal. The cold season from December to February is very pleasant. The average temperature of the district varies between 22 degree Celsius to 32 degree Celsius and the average rain fall is 1583 mm.

The flora of the district covers piyasal, sal, sishu, jam, bahera, and simul. It is also the home to a number of fauna including elephant, wild cats, long tailed monkeys, cheetals, leopard, gaur, giant squirrels and many more. Birds such as hill myna, peafowl, hornbill etc as well as a huge variety of reptiles

Nuapada district:

The plains of Nuapada sub-division fringed by rugged hill ranges stretch southward, which belong to the main line of the Eastern Ghats and contain extensive plateaus of about 1200 metres in elevation with long tropical grass over them. They contain mineral deposits of laterite, graphite and bauxite. The hill sides rising up abruptly from the plains are covered with dense Sal forests. The district's forests composition can be classified into Sal forests, teak forests, miscellaneous forests where Sal, teak and bamboo forests are found in mixture. All these are situated in the dry deciduous forest zone. Timber is by far the major forest produce and Sal is a major constituent of these products. Among the minor forest products of this region are kendu

leaf, bamboo, broom-grass, mohua flower and seed, etc. Timber, bamboo and kendu leaf are the main exports outside the state. Generally, climate of Nuapada district is hot and dry; humidity is negligible with scanty rainfall. Its Fauna species are the common wolf, sloth bear, honey badger or ratel, hyaena, jackal, wild dog, leopard cat, jungle cat, civet cat, otter, teddy cat and the common mongoose wild bear, spotted deer, the barking deer, the black faced langur or Hanuman monkey, the pink-faced Bandar.

Undivided Koraput district (Koraput, Nabarangpur, Malkangiri and Rayagada districts):

The undivided Koraput district is located between 17° 40' and 20 ° degree 7' minutes north latitude and between 81 ° 24' 84 ° 2' east longitude. Average altitude of the district is 2900 feet above the sea level. Total geographical area of the district is 8379 sq. kms. The district is located on a section of Eastern Ghat in two agro-climatic zones namely Eastern Ghat High Land (entire Koraput Sub-Division and Kotpad Block) and South-Eastern Ghat Zone (Jeypore, Barium, Kundura and Boipariguda blocks).

The district of Koraput is located on a section of Eastern Ghat in two agro-Climatic Zones namely Eastern Ghat High Land (entire Koraput Sub-Division and Kotpad Block) and South-Eastern Ghat Zone (Jeypore, Borigumma, Kundura and Boipariguda blocks). The district has attitude ranging between 300 metres to 1000 metres above mean sea level. The district of Koraput is having undulating topography with a number of all streams. 1.3 Availability of Minerals. The district is adequately endowed with significant mineral deposits like Bauxite, Black granite, Red orcher, Granite, Quartz, limestone, Dolomite, Clay and Mica etc.

The Rayagada and Gunpur subdivisions (the present Rayagada district) are the most fertile belt. It has large tracts of forest in the Gunpur and Bisam-Cuttack tahasils containing some of the most valuable species of timber. Two major rivers such as Indravati, Jhanjabati and their tributaries drain this division. The 3,000 feet plateau area is now mostly denuded of forest. Here the hills are either covered with low shrubs or bared with disfigured patches of barren land spoiled due to shifting cultivation. It is drained westward by the rivers Indravati, Kolab and southward by the Machkund towards the Godavari valley.

The 2,000 feet plateau covers almost the entire extent of Nabarangpur subdivision (the present Nabarangpur district). It extends far to the west in Bastar and in the north into the district

of Raipur of present Chhattisgarh State. It is the main flat country except for the forests in the west of Jeypore tahasil, where there are low hills. Elsewhere the plains are only broken by a few isolated hills. The plateau is full of sal and other timbers due to heavy rainfall during southwest monsoon. However the northeast monsoon scarcely affects the plateau. As a result, the Nabarangpur and Umakote tahasils become dry and water scarce during summer. This plateau is considered as the principal granary of Koraput district, because the land is fertile and thinly populated. Besides, paddy, wheat, sugarcane and vegetables are grown here in fair quantity.

The Malkangiri subdivision (the present Malkangiri district) forms the fourth natural division of the old Koraput district. A strip along the eastern boundary takes in the Ghats, which uphold the 3,000 feet plateau and the valley of the Machkund. Almost the whole of the subdivision is covered with dense forests. During the rainy season it becomes impassably swampy and heavy floods isolate the entire region from the outer world. The summer is equally hard. The whole plain is parched in the extreme and there is acute water scarcity. Added to this, the entire belt is reported to be malaria prone and the soil condition is too poor to make this agriculturally prosperous.

The undivided Koraput district has many rivers and perennial streams. Notable among them are the Vansadhara and the Nagavali in present Rayagada district and the Indravati, the Kolab and the Machkund flowing in the present Nabarangpur, Koraput and Malkangiri districts. The district is reported to be rich in mineral deposits. The important mineral ores found in the district are china clay, gold, graphite, limestone, manganese, mica, bauxite, etc. It is needless to mention that in the past the dense forests with rich varieties of flora and fauna covered the district. The total forest area of the district was reported to be around 70 per cent of the total land area in the 1960s. However, at the end of December 1997 the total forest area was only 36.38 per cent of the total geographical area.

Forest occupies 15.96 percent of the total geographical area of the district. The principal species commonly found in the forest are Timber, Fire wood and Minor forest produces like Tamarind, Hill Brooms and different types of fibres, Oil Seeds, Medicinal Plants and Kendu Leaves etc. Koraput district is mostly having the forest growth with Climax species 'Sal'. The Sal growth is comparatively good around Jeypore area. From Jeypore towards Jabalpur, there is also an area with marked growth of teak which is demarcated as 'Sal Teak Tension Zone'. There

is also intermixture of bamboo forest mainly because of the biotic interference. The flora of the district also includes rosewood, piasal, sanghvan, haldi and rosewood. The Podu (Shifting Cultivation) is rampant making a good area denuded. Large-Scale forest clearings by tribals are seen due to increase in demand for timber and fire-wood.

The fauna of the district comprises of the panther, leopard, tiger, hyena, jackal and wild dogs, Wild Asian Water buffalo, black bear, gaur, black bucks, spotted deer, sambar and barking deer, peafowl, red jungle fowl and grey jungle fowl, green pigeon and duck. The Fauna are Cattle, Buffalo, Goat, Sheep, Pig, Rabbit, Ducks, Cross Bred.

Gajapati district:

Major part of Gajapati district has a hilly terrain and undulated topography. The highest mountain of the district Mahendragiri lies at an altitude of 4,923 feet above the sea level. The soil quality is alluvial, brown, land Lateritic, clay loam, sandy loam and red soil. The geographical formation of the district is Alluvial, brown land Laterite, Newer Dolerites and Archon comprising igneous and metamorphic rocks. The main soil types are clay loam, sandy loam and red soil. The normal rainfall received in the district is 1403.30 mm. The soil and climate is suitable for plantation crops and there is a great potential of horticulture development in Gajapati district. More than 60 per cent of lands are situated in hilly terrain, which has been treated as high lands, mainly suited for horticulture plantation and other cultivable land belongs to the category of medium lands and low lands.

The Fauna and Flora of Gajapati district are Cattle, Buffaloes, Goats, Horses, Ponies, Mules and Donkeys, Dogs and Rabbits, Pig, etc. **Tree species like Jamun, Ashoka, Rai are confined to the plateaus. Salia bamboo occurs mixed with Sal and miscellaneous forests on direr hills, forming pure patches at places. Kanta bamboo is confined to moist areas only.**

Sambalpur district:

Sambalpur district has three distinctive physiographic units such as, hilly terrain of Bamra and Kuchinda in the north, plateau and ridges of Rairakhol in the south-east and valley and plains of Sambalpur sub-division in the south east. This district experiences extreme type of climate with hot and dry summer followed by humid monsoon and severely cold winter. The hot season commences from 1st week of March and lasts till the second half of June. Sambalpur

district experiences 66 rainy days and 153 centimeters rainfall on an average per annum. Most of the rainfall is confined to the months from June to October visited by south west monsoon. Mercury increases up to 47 degree Celsius during May with intolerable heat wave and falls as low as 11 degree Celsius during December with extreme cold. The rainfall is highly uneven and irregular. After rainy season the humidity gradually decreases and the weather becomes dry towards the winter. Sambalpur District forms a part of the Mahanadi River basin. The Mahanadi, the longest river of the state, enters into the district in the north western border, where the famous Hirakud Multipurpose Dam Project is built. Other important rivers of the district are the Maltijor, the Harrad, the Kulsara, the Bheden, and the Phuljharan. The district has a total forest area of 3986.27 sq kms which is around 59.46 percent of the total area of the district. Total land under cultivation in the district is 173540 hectares. Most of the villages of the district are inaccessible during the rainy season. Sambalpur district forms a part of North-West upland of Orissa, which is rolling and multiplying the ground slopes from a height of 776 feet to a height of 460 feet. The district has rigor soil.

The Fauna and Flora of Sambalpur district are common wolf sloth bear, honey badger or ratel , hyaena, jackal, wild dog leopard cat, jungle cat civet cat otter, teddy cat and the common mongoose (wild bear, spotted deer, sambar, the barking deer langur or hanurnan monkey, the pink-faced bandar several species of bats, the tailed hare and pangolin, porcupine fauna including tiger, leopard, elephant, hyena, wildboar, spotted deer, sambar, bear, porcupine . kendu leaf, bamboo, broom-grass, mohua flower and seed, etc. Timber, bamboo and kendu leaf are the main exports outside the state.

Kendujhar district:

Kendujhar district consists of a compact area and its extreme length from north to south is nearly 145 km. The average breadth from east to west is about 65 km. It is divided into two widely dissimilar tracts the lower Kendujhar and the upper Kendujhar. The former is a region of valleys and low lands, while the latter includes mountainous highlands with a general slope from north to south. The highlands consisting of clusters of rugged crags afford a safe retreat to its inhabitants in troubled times. The mountaintops have extensive tablelands on their summits, fit both for pasture and for tillage. The average elevation in its central part is about 500 metres. At places, isolated hills rise abruptly from the plains. But most of the areas have a general elevation

of over 600 metres, which forms the watershed of some rivers. The Baitarani River takes its rise in the hilly north western division. About half of the area of this district spreading about 4043 sq kms is covered by forests of northern tropical moist deciduous type and contains Sal, Asan, Piasal, etc. The river Baitarani comes out of Gonasika Hills and flows to the north touching the border of Singhbhum district of Jharkhand. The soil is mostly red throughout the district and in the south there is a small patch of black cotton soil. The important minerals available in huge quantity in the district are Iron-ore, Manganese and Chromites.

The climate of the district includes oppressively hot summer with high humidity. Summer generally commences in the month of March. Temperature begins to rise rapidly attaining the maximum in the month of May. During the summer maximum temperature recorded is around 38 degree Celsius. The temperature in the month of December is lowest that is near about 11 degree Celsius. Sometimes it even drops down to 7 degree Celsius. The average annual rainfall is 1534.5 mms.

The Fauna of Kendujhara district are Elephant Cattle, Buffaloes, Goats, Horses, Ponies, Mules and Donkeys, Dogs and Rabbits and Pig and the flora appears confined to the plateaus are Sal Jamun, Ashoka, Rai, Salia bamboo . Kanta bamboo, Kendu, Sandal, and Akasii.

Angul district:

Mahanadi River and Brahmani River flows through the district of Angul making it fertile. Various natural resources are found in abundance in Angul District and make a major contribution to the maximum amount of revenues to the state government. It is because of this reason that it is considered as the most strategically advanced district. The flora of this district are Sal, Piasal, Sisoo, Bandhan, Gambhar, Kurum, Salai, Karada Barabakalia and Teak. The fauna of this district are elephant, tiger, leopard, Bison, Sambar, barking deer, spotted deer, wild boar, sloth bear, Pangolin, Manitor lizards, civet cat, porcupine, mongoose, snakes like python, cobra, viper and kraits.

Kandhamal district:

Physiographically the entire district lies with high altitude zone with inaccessible terrain of hilly ranges and narrow valley tracts which guides the socio-economic conditions of people and development of the district. Kandhamal District has two sub-divisions, Phulbani and Balliguda. Phulbani sub-division forms a broken plateau of about 518 metres above sea level. On the north-east and west these ranges quite perceptibly rise abruptly from the plains of Boudh district while on the south they merge in the outlines of the Eastern Ghats of Balliguda sub-division. The high plateau lying within these ranges is broken up by numerous smaller ranges which form an endless series of valleys varying in size. Thick forest still covers much of these tracks and the villages lie in scattered clearings along the hill sides and in valleys below, while some are in almost inaccessible places on the top most summits of the hills. This hilly tract is intersected in all directions by streams. The uplands and slopes leading down from the foot of the hills are utilised for growing dry crops periodically depending on the rain.

The Balliguda Sub-division is on the plateau and lies at height varying from 300 meters to 1100 meters above the mean sea level. The eastern side of the sub-division consists of wide well cultivated valleys. The small hamlets dotted throughout the district are covered with thick impenetrable forest and the winding streams and torrents intersect the hilly tract. The hills of this sub-division are a part of the Eastern Ghats. Kandhamal district has a sub tropical dry climate. Maximum temperature recorded is around 45 degree Centigrade and minimum temperature as nearly 2degree Centigrade. Flora of this district are kendu leaves, Piasal, Sisoo, Bandhan, Gambhar, Kurum, Salai, Karada and Barabakalia,Teak. The fauna of this district are Goats, Horses, Ponies, Mules and Donkey, Cattle, Dogs and Rabbits, Hens, Ducks and Elephant.

3.5. Demography

The total population of Odisha as stood at 36,706,920 as per the Census of India 2001. In terms of population it holds the same position (eleventh) among States and Union territories as at the previous census. The population of the State rose by 15.94% between the decade 1991-2001. The sex ratio (i.e., the number of females per thousand males) was recorded as 972. Total literacy in the State has shown significant improvement. This has risen from 49.09 % in 1991 to 63.61 % in 2001.

The population of Odisha increased from 316.60 lakh in 1991 to 368.05 lakh in 2001. The decennial growth rate of population of Odisha during 1991-01 was 16.25% as against 20.06% in the previous decade. The decline in the growth rate may be attributed to the rise in literacy rate, effective dissemination of the message about benefits of small family, and the drive launched by the State Government to provide better access to family planning measures. The sex ratio in the State marginally increased from 971 in 1991 to 972 in 2001 as compared to the all India average, which increased from 927 to 933 during the same period. The density of population, which was 203 persons per sq km in 1991, increased to 236 per sq km in 2001. On the literacy front the achievement has been impressive as the literacy rate increased from 49.09 % in 1991 to 63.1 % in 2001 as against an increase from 52.10 % to 64.8% at the national level during the same period. The male and female literacy rates, which were 63.1 % and 34.7% in 1991, have increased to 75.3% and 50.5% respectively in 2001. Female literacy continues to be an area of concern despite notable achievement during last decade.

The Scheduled Tribes population in the State, as per 2001 census, was 81.45 lakh, which was 22.1 % of the total population of the State as against 22.2% in 1991. The decennial growth rate of ST population during 1991-2001 was 15.8%. Similarly, as per 2001 census the sex ratio among ST people was 1003 as against 972 at all India level.

Table 3.1 Population and literacy level of STs in Odisha:

Population 2001 Census			Level of literacy	
Persons		Decadal Growth 1991 – 2001	No. of Literates	%
All	36,706,920	(+) 15.94%	20,053,785	63.61 %
Males	18,612,340	(+) 15.86%	12,118,256	75.95 %
Females	18,094,580	(+) 16.02%	7,935,529	50.97 %
Sex Ratio: 972 females per 1000 males				

Odisha comprises of 4.74% of India's landmass and 36.80 million people (2001 Census), accounts for 3.58% of the population of the country. Nearly 85 % of its population live in the rural areas and depend mostly on agriculture for their livelihood. The State has abundant mineral resources including precious and semi--precious stones. It has also plentiful water resources. According to the estimate of the Central Ground Water Board, the total ground water resources

in Odisha was 21,01,128 hectare meter in 2001. Accordingly, 14.79 percent of ground water resources had been harnessed till 2001. The total cultivable land of the State is nearly 65.59-lakh hectare of which only 26.89-lakh hectare has been provided with irrigation facilities by the end of 2003-04, which constitutes around 40% of the cultivable land. Planned exploitation and optimum utilization of rich natural resources like mineral, land, water and others including human resources holds the key to rapid economic development of the State.

Scheduled Tribes constitute nearly 22.21 % of the total population of Odisha. 62 tribal communities have been designated as Scheduled Tribes of which 13 have been recognized as Primitive Tribal Groups. Nearly half the State's area (44.70 %) is under Schedule V of the Indian constitution, with a total population of 8,870,884 (1991 census), out of which 68% is constituted by tribal population.

The Scheduled Tribe population in the State is overwhelmingly rural, with 94.5 per cent residing in villages. District wise distribution of ST population shows that Malkangiri district has the highest proportion of STs (57.4 per cent) followed by Mayurbhanj (56.6 per cent), Rayagada (55.8 per cent) and Nabarangapur (55 per cent). Puri district has the lowest by proportion of STs (0.3 per cent).

District wise distribution of the individual ST shows that Kandha have the highest proportion (93.3 per cent) in Kandhamal district, followed by districts like, Nayagarh (76.9 per cent), Baudh (76.4 percent), and Rayagada (71.1 per cent). Gond has the highest concentration in Nabarangapur district followed by Nuapada district whereas Santal and Kolha are primarily concentrated in Mayurbhanj district. Other four STs, Munda, Saora, Shabar and Bhattada are primarily concentrated in Sundargarh, Bargarh, Gajapati and Nabarangapur districts, respectively.

The STs covered under this research are concentrated in Barasahi, Jamada, Jasipur, Kaptipada blocks of Mayurbhanj district, Athmalik, Pallahara blocks of Anugul district, Basta blocks of Balesore district, Gumma, Paralakhemundi, R.udaygiri, Aska blocks of Gajapati district, Hatadihi, Champa, Banspal, Patna, Telkoi of Keonjhar district and Khaiput and

Korkunda block of Malkangiri district. The distribution of tribes in the study areas is presented in the following Table 3.2.

Table 3.2: Distribution of tribes in the study area:

Sl. No.	Name of the Tribes	District	Blocks	Villages
1	Bonda	Malkangiri	Khairiput	Mudulipada, Padeiguda
2	Chuktia Bhunjia	Nuapada,	Komna	Barakot, Cherichima
3	Hill-Kharia/ Kharia	Mayurbhanj Sundergarh	Jashipur Balisankar	Kapand, Matiagada, Ghughar
4	Junag	Keonjhar	Banspal	Gonasika, Baya Kumutia
5	Lanjia Saoura	Gajapati	Gumma	Serango, Bhubani
6	Paudi Bhuiyan	Anugul	Pallahara	Jamaradihi
7	Bhumij	Baleswar Keonjhar	Basta	Basta Sundarapal
8	Dharua	Koraput	Baipariguda	Talur, Haladikund
9	Desia Kandha	Phulbani Baleswar	Phiringia Basta	Suhagpur Basta
10	Gadaba	Koraput	Lamptaput	Kandiguda, Kantiguda, Sankhei
11	Gond	Sundergarh Anugul	Balisankar, Pallahar	Simuda Para, Parua, DudiPani
12	Koya	Malkangiri	Korkunda	MV-33, Gonglaguda
13	Oraon	Sundergarh	Balisankar	Ghughar
14	Kisan	Sambalpur	Kuchinda	Badapada, Mantrimunda
15	Munda	Sundergarh, Anugul Keonjhar	Talasara Pallahara Banspal	Balisankar Jamaradihi Dudipani, Baya Kumutia
16	Santal	Keonjhar	Hatadihi	Daleisahi

1. Bonda

Bonda is one of the most primitive particularly vulnerable Tribes of the Odisha. they are found the highland of Easternghat of Malkangiri district. They are divided into 2 groups, i.e Upper Bondo and Lower Bondo. The latter group inhabits the up land known as Bonda Hills situated towards North West of river Machkund. The Link Between nature and society is central to the religious belief of the Bondas. For them, nature’s cycle is intrinsic to a cosmology that imbues all natural phenomena with spiritual life and thus the objects of nature actively intervene the Bonda’s daily life. Their personal appearance and attires remarkable. The Bonda men wear a narrow strip of loin cloth (Gosi) and usually cover the upper part of their body by a mass of brass & bead necklace and large circular brass/aluminum neck rings. They cover the lower part by a short strip of cloth usually striped called Nadi or Ringa weaved out of Kereng fiber. The Bondas shave their heads completely and adorn it with colorful beads. Bonda settlements are usually on highlands surrounded by bounties of nature. Their family type is nuclear, patrilineal and neolocal. Their religion is autonomous tribal religion. In a village their meeting place –Sindibor is built at a convenient location. The village presiding deity is found at the entrance of the village. They worship the deities of nature like the Patkhanda Maaparavu – the creator of universe, Bur sung - the mother earth and the village Goddess. Sisa is the village priest who worships these deities. “Naik” is the elderly person of the village who presides over the village council meetings. The demographic profile of Bondo PTG in the Bonda Development Agency, Mudulipada, Malkangiri (Micro Project) area is presented in the statement given below.

Demographic profiles of Bondo tribe of BDA, Mudulipada, Malkangiri.

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	3092	3584	6676
2	Literacy rate	19.60	8.98	14.10
3	Workers			
4	Child population	-	-	1339
5	Sex ratio	1159 females /1000 males		

(Source: Micro Project Profile, SCSTRTI, 2012)

Our investigation on Bonda health practice was focused on two villages, Mudulipada and Padeiguda, in Khairiput block of Malkangiri district of Odisha. Both the villages comprise 53 households and have a total population of 209, out of which, 111 are male and 98 are female.

The study villages are homogeneous in ethnic composition. The investigation focused on 57 respondents including 5 local healers and 4 magico-religious leaders.

2. Chuktia Bhunjia

Bhunjia is a small Tribe of Odisha. The name Bhunjia signifies one who lives on the soil. The Bhunjia tribe is distributed in Balesore, Mayurbhanj, Nuapada and Nowrangapur district of Odisha. The Bhunjia Tribe is divided in to two sections – Chuktia Bhunjia and Chinda Bhunjia. The former is a Particularly Vulnerable Tribal Group (PTG) and the latter is perhaps a mixed Holva and Gond descent. The Tribe mainly settles in the hill ranges of Gatiabeda around Sonabeda plateau of Nuapada district. The Chuktia Bhunjia socio – cultural identity is distinct for their scarred kitchen – shed built a little away from other rooms and enclosed around to guard it from the touch of any outsider including their married daughter. If it is touched by an outsider, they set it on fire and raze it down to the ground. Until a new kitchen – shed is built; the food is cooked in a makeshift kitchen in an enclosed open space. Their houses are painted with floral and animal designs. They are divided into two exogamous moieties, Netram and Markam. The Chuktia Bhunjia family is nuclear, patrilocal and patriarchal. Chuktia Bhunjia religion is autonomous tribal religion. The Supreme deity of Chuktia Bhunjia is Sunadei installed in a shrine at the village. The Pujari is the ritual head who is assisted by Chhatriya and Katariya. Their village council is constituted by elderly members called Bhal- Bhai. Pujari, Chhaatriya and Katariya are the previllaged members of the council. They have their inter - village council which is presided over by Kurha. The demographic profile of Chuktia Bhunjia PTG in CBDA, Sunabeda, Nuapada (Micro Project) area is presented in the statement given below.

Demographic profiles of Chuktia Bhunjia in CBDA, Sunabeda, Nuapada District.

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	1220	1158	2378
2	Literacy rate	62.54	42.91	52.98
3	Workers			
4	Child population	-	-	436
5	Sex ratio	949 females /1000 males		

(Source: Micro Project Profile, SCSTRTI, 2012)

Our investigation on Chuktia Bhunjia health practice was focused on two villages, Barakot and Cherichima, in Komna block of Nuapada district of Odisha. The villages comprise 161 households and have a total population of 625, out of which, 327 are male and 298 are female. The study villages are homogeneous in ethnic composition. The investigation focused on 79 respondents including 5 magico-religious leaders.

3. Hill Kharia/Kharia

The Hill Kharia, locally known as “Pahari Kharia”, is a highland Tribal group normally found in the Similpal forest ranges. They are a semi nomadic Tribe. They live in multi ethnic villages with communities like the Bathudi, Gond and Kol. Their small thatched huts are found around the foot hills of Similipal. At village level they worship “Thakurani” as their main deity. They also worship nature and think Sal tree as most sacred. They collect Sal resin a sacred perfume which serves as disinfection. They also worship Sun God. As their ritual and political head, Dehury performs all community rituals and heads the village council.

Demographic profiles of Hill-Kharia PTG in Mayurbhanj district

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	1060	1051	2111
2	Literacy rate	47.66	36.41	42.41
3	Workers			
4	Child population	-	-	734
5	Sex ratio	991 females /1000 males		

(Source: Micro Project Profile, SCSTRTI, 2012)

Kharia tribe is distributed in Mayurbhanj and Sundergarh districts of Odisha. In the present study we investigated on Hill-Kharia PTG at Kapand and Matiagada villages of Jasipur block of Mayurbhanj district and, on Kharia tribe at Ghaghar village of Balisankar block of Sundergarh district. In these study villages out of a total of 428 Kharia households, 240 households are Hill Kharia (PTG) with a population of 828. Their villages are mainly connected through kutchha and pucca roads and some are with footpaths. Cattle, goat, sheep, poultry are their main livestock. Goats are domesticated in more numbers among them. Hill Kharias are mainly agriculturist as 72% of the people depended on this whereas 15% depend on wage earnings, and the rest are on animal husbandry and forest collections. There is a strong

intercommunity relationship seen among the Hill-Kharia PTG. The demographic profile of Kharia tribe in Odisha state is presented in the statement given below.

Demographic profiles of Kharia tribe in Odisha

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	93467	94864	188331
2	Literacy rate	56.16	34.52	45.23
3	Workers	50575	40302	90877
4	Child population	-		30653
5	Sex ratio	1015 females /1000 males		

(Source: 2001 Census)

Besides, our investigation also focused on Kharia tribe at villages Badapada, and Mantrimunda in Kuchinda block of Sambalpur district. There are 118 households and total populations of 456, out of which 238 are male and 218 are female. The other community found there is Dhibar and their number 15. The investigation was focused on 40 respondents including 5 magico religious leaders and 5 local healers.

4. Juang

The Juang is one of the most PTGs and found only in Odisha. They are very sober and simple. Juang Pirh refers to their cultural geography is considered among them the Pirh, the original habitat. They are also found distributed in parts of Anugul and Dhenkanal districts and are locally called Bhagudia. They are not quite free before the outsider. The villages they live in are multi-ethnic, mostly with Telis and Goudas. However, there are a few villages of their own. They have close intimacy with the members of milk man caste. Most original Juang villages are located in hill slopes and valleys. They worship “Gramsary” as their chief village deity. Lord Siva assures a special position in Juang penthion. Nagam is the village priest, who performs all the rituals and Pradhan heads the village councils. Juang people are found in Gonasika area of Banspal block in Keonjhar district of Odisha. The present study was focused on Juang dominated villages, like Gunasika and Bayakumtia of Banspal block. Villages are connected through jeepable roads, agriculture and wage earning is the main occupation of the villagers. Poultry is the main livestock. The Juang demographic feature in the JDA, Gonasika, Keonjhar (Micro Project) area is given in the following statement.

Demographic profile in the JDA, Gonasika, Keonjhar (Micro Project) area

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	4196	4396	8592
2	Literacy rate	4062	17.52	29.75
3	Workers			
4	Child population	-		2389
5	Sex ratio	1047 females /1000 males		

(Source: 2001 Census)

Our investigation was focused on Juang PTG health practice at two villages, namely Gunasika and Bayakumtia of Keonjhar district. The other ethnic groups found in the study villages are Bhuyan and Gouda. The number of Juang households is 225 and population is 346, out of which 201 are male and 145 are female. The investigation covers 40 respondents including 5 local healers and equal number of magico-religious leaders.

5. Saora /Lanjia Saora

The Saora are one of the most significant tribes of Odisha. They are an integral part of Jagannath cult tradition of Odisha. The Tribe is called by different name at different places such as Saora, Sabar, Sahar, Sur, Sora etc. The tribe is widely found all over the Central Indian state like Bihar, Odisha, Madhya Pradesh, Maharashtra, Andhra Pradesh and West Bengal. In Odisha the tribe is largely concentrated in the highlands of Gajapati and Rayagada districts. Saora settlements are usually found in the inaccessible interior deep forest. The distinguished feature of Saora is their style of dress especially the long ended lion cloth of males. The Saora are very artistic people and their painting skill is seen on their walls. To Wooden post called Gasadasum or Kitungsum installed at the entrance of the village representing their guardian deity. Buyya is the person in the village who perform the rituals. Their traditional village council is composed of family heads known as Birinda Neti. The secular head man is known as Gamango or Niko.

The Lanjia Saora constitutes one of the primitive sections of the Saora Tribe. They inhabit in the areas of Gagapati and Ryagada district towards western side of Eastern Ghats. They prefer hill slopes or the foot hills to live in. Their habitation area is mostly inaccessible.

Lanjia Saora are so called for their distinctive dress style of male members in which the long and narrow strip of male loin cloth is worn in such a fashion that both the red embroidered ends hang down in front and back like a tail or Lanja. The women with their typical dress style enlarge their ear loops to wear rounded wooden pegs. The Lanjia Saora family is mostly nuclear, patrilocal and patrilineal. Their religion is autonomous tribal religion. The Lanjia Saora makes their famous wall paintings known as Italons inside their house. Sonnum or Sunnem is the name for their deities. Buyya is their religious head man and Gamang is the chief of the village council. The Lanjia Saora / Saora PTGs people are mainly concentrated in two Micro Project areas, like LSDA, Puttasingi, in Rayagada district and LSDA, Seranga in Gajapati district. The demographic profile of Lanjia Saora PTG in the Lanjia Saora Development Agency, Puttasinghi in Rayagada district and Seranga in Gajapati district (Micro Projects) areas is presented in the statement given below.

Demographic profiles of Lanjia Saora PTG in LSDA, Puttasingi, in Rayagada district

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	2927	3340	6267
2	Literacy rate	63.26	41.52	51.58
3	Workers			
4	Child population	-	-	1460
5	Sex ratio	1141 females /1000 males		

(Source: Micro Project Profile, SCSTRTI, 2012)

Demographic profiles of Lanjia Saora PTG in LSDA, Seranga in Gajapati

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	2775	2778	5553
2	Literacy rate	42.41	23.86	33.19
3	Workers			
4	Child population	-	-	2021

5	Sex ratio	1001 females /1000 males
---	-----------	--------------------------

(Source: Micro Project Profile, SCSTRTI, 2012)

Our investigation on Lanjia Saora health practice was focused on two villages, Serango and Bhubani, in Gumma block of Gajapati district of Odisha. Both the villages comprise 42 households and have a total population of 146, out of which, 81 are male and 65 are female. The other ethnic group of the study villages is Pano, a SC community. The investigation focused on 9 respondents including 4 local healers and 5 magico-religious leaders.

6. Paudi Bhuiyan

The Paudia Bhuyans, also known as hill Bhuyans, are a section of Bhuyan Tribe. The Bhuyan are distributed in various parts of Odisha and other states like, Asham, Bihar and West Bengal. In Odisha, they are found in Mayurbhanj, Keonjhar, Sundargarh, Sambalpur and Anugul district. The Paudia Bhuyan people mostly inhabit in isolated hills and forest areas. The Paudi Bhuyan village is congruent with the agnatic lineage watched by its ancestral spirits who also inhabit the site. Their houses are vim neat and clean, walls are plastered with cow dung and locally available red earth. In every house there is a kitchen garden for growing vegetables. In every village they install Gaisiri Khunta made of a piece of carved wooden pillar which represents their village deity, where rituals are observed. They also worship Sun God as Dharam Devata and Basuki Mata as earth Goddess. Dehury is their priest, who performs all rituals. If villagers are not satisfied with the function of Dehury they can change and recruit a new suitable one. Naik is the head of village council also known as Gauntia or Pradhan.

The demographic profile of Paudi Bhuyan (PTG) in in two micro Projects areas of Odisha state is presented in the statement given below.

Demographic profiles of Paudi Bhuyan (PTG) in PBDA, Khuntagaon, Sundargarh, District Odisha

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	2060	2066	2126
2	Literacy rate	23.68	12.39	18.03
3	Workers			

4	Child population	-		1636
5	Sex ratio	1003 females /1000 males		

(Source: *Micro Project Profile, SCSTRTI, 2012*)

Demographic profiles of Paudi Bhuyan (PTG) in PBDA, Rugudakudar, Deogarh District, Odisha

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	1889	1941	3830
2	Literacy rate	29.54	21.79	25.61
3	Workers			
4	Child population	-		1474
5	Sex ratio	1027 females /1000 males		

(Source: *Micro Project Profile, SCSTRTI, 2012*)

The Paudi Bhuyan PTG is found in Anugul, Deogarh and Sundargarh district of Odisha. In the present study we have taken Jamaradihi village of Pallahara block in Angul district which has 88 households including 68 Paudi Bhuyan households and a total population of 567. The total land area of the village is 96.34 acre. The village forest area is 77.56 acre and cultivable area is 28.96 acre. The village is connected by a kutchha road. Cattle, sheep and goats are the main live stock of the villagers. Tribals are mainly depends on agriculture and wage earning. Our investigation also focused on villages, Haladikund and Jamaradihi of Anugul district. There are 88 households and total populations of 367, out of which 167 are male and 200 are female. The other community found there are Munda (ST) and Dhibara/Dewar (SC) and their number is 8 persons. The investigation was focused on respondents including 2 magico religious leaders and 2 local healers.

7. Bhumij

Bhumij tribe is mainly distributed in Balesore, Mayurbhanj, Keonjhar, Sundergarh and Dhenkanal districts of Odisha. The Bhumijas are mainly divided into four endogamous groups like *Tamudia* or *Tamaria Bhumij*, *Haldipokhoria Bhumij*, Teli Bhumij and Desi or Dehuri Bhumij. The Bhumija family is nuclear, patrilineal and patripotestal. The clan system regulates

marriage. Marriage by capture, service and intrusion are prevalent. Levirate and sororate types of marriage are also prevalent. They cremate the dead, except for those below twelve years of age, who are buried. Their main occupation is cultivation which is supplemented by forest collection, wage earning. They observe main festivals and rituals like Karama, Dhulla Puja, Vandana Parab, Makar, etc. Bhumij religion is autonomous tribal religion. Bhumija family is nuclear, patrilineal and patripotestial. Their clan system regulates marriage. The demographic profile of Bhumij ST in Odisha state is presented in the statement given below.

Demographic profiles of Bhumij tribe in Odisha

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	125102	123042	248144
2	Literacy rate	51.09	21.72	36.48
3	Workers	65531	48628	114159
4	Child population	-	-	43500
5	Sex ratio	984 females /1000 males		

(Source: 2001 Census)

The research investigation on Bhumij tribe was made at villages Sunderpal of Keonjar district and Basta of Balesore district. The total land area of both the villages is 544.309 sq.km. Both the villages are heterogeneous in ethnic composition. Besides, the Bhumij the other ethnic groups live in the villages are STs , like Munda, Matia Santala, Khadal and SC such as Rajuar and Pano and Muslim. As many as 40 households and 195 persons, out of which 102 are males and 93 are females foun in the villages. The investigation is focused on 41 respondents, out of which 2 are local healers and 3 are magico religious leaders.

8. Dharua

Dharua tribe is one of the ancient tribes that are found in Odisha. The Dharua tribe is mainly found in Malkangiri, Koraput, Nowrangapur, Bolangir districts of Odisha. The Dharua people are largely found in Korukonda block of the Malkangiri district. The Dharua is one of the Gondid tribe and otherwise referred to as Dharua Gonds. In the past, the saying goes, the tribesmen served as warriors to the kings. The tribe is divided into clans and sub-clans. Each subclan, *vansa*, is named after a mythological Rishi who is represented by a totemic animal

following the Hindu Puranic traditions. They practice occupation like Cultivation, Forest Collection, Basketry and Agrl. Labour. Dharua practise arranged marriage. They perform *sindurdan*, the ritual of marrying to a mango tree. They believe in the existence of ancestral spirits, ghosts and witches. They appease the supernatural agencies by offering food and animal sacrifices. Their main festivals are Lendi Panda, Ghiapanda, Goesendia Hia. The Dharua cremate the dead and observe death pollution for three days. The demographic profile of Dharua tribe in Odisha state is presented in the statement given below.

Demographic profiles of Dharua tribe in Odisha

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	4688	4559	9247
2	Literacy rate	27.84	11.18	19.60
3	Workers	2757	2050	4809
4	Child population	-	-	1640
5	Sex ratio	972 females /1000 males		

(Source: 2001 Census)

Our investigation on health practice of Dharua tribe was focused on two villages, namely Talur and Haladikund of Koraput district. Both the villages have 110 households with a total population of 268, out of which 166 are males and 102 are females. The other community found there is Kamar and their number 15. The investigation was focused on 40 respondents including 2 magico religious leaders and 2 local healers.

9. Desia Kandha

The Kandha is numerically the largest tribe of Orissa. They are mainly concentrated in the districts like Rayagada, Kandhamal, Kalahandi, Koraput They organize themselves into territorial clan groups. Each clan is strictly exogamous. Kondh clans can be divided into four functional groups, namely, mondal, bismajhi, jani and pujari. Clan is called kuda and the functional group is called punja. Their main occupations are settled and shifting cultivation, animal husbandry, hunting and forest collection. They observe major festivals and rituals, like Ghanta Parab, Meria, Dakina, Mandiarani, Korubiha and Dussera. In every year between January and March they observe meria festival at the level of clan territory and sacrifice buffaloes on the

occasion and offer it to the Earth Goddess, dharni penu. Girls' dormitory is one of the interesting institutions to which young boys of the same village cannot enter. Young men from affinal clan villages attend the dormitory late in the evening and leave the place before dawn. The Desia Kandha people, a sub section of the tribe, are mainly found in Kandhamal, Kkalahandi districts of Odisha. Their clans are divided into 4 sub groups, like Jani, Pujari, Mondal and Bismajhi. The demographic profile of Kandha of Odisha is presented in the statement given below.

Demographic profile of Kandha in Odisha

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	688402	707241	1395643
2	Literacy rate	46.24	17.98	31.87
3	Workers	389121	327095	716216
4	Child population			254586
5	Sex ratio	1027females /1000 males		

(Source: 2001 Census)

Our investigation focused on villages, Phiringia of Kandhamal district. The number of households is 33 and total population is 112, male 80 and female 192. The number of respondents are 45 including 5 local healer and 4bmagico religious leader.

10. Gadaba

Gadaba tribe is found in Koraput, Malkangiri and Nowrangapur districts of Odisha. They are divided into 4 sections, like Bado, Parenga, Olaro and Sano Gadaba. These are the *Mahad dien*, the *Dondul Dien* and the *Chhendi Dien*. Thakurani is their supreme village deity. Thakurani is represented by a stone and is offered sacrifices by *disari*. The shrine is called *hundi*. The Gadaba women are fond of wearing brass, aluminium and gold ornaments to adorn themselves. The women wear hand woven striped cloth called *keranga*. Shifting Cultivation and Forest Collection are their main occupation. The Gadaba prefer adult marriage and have the custom of bride price. Monogamy is the rule although in some cases polygyny is practised. Every three to five years duration the Gadaba observe *gottar*, the secondary burial ritual at the village level. In every Gadaba village the traditional council is headed by *naik*. The headman is assisted by a

challan and a messenger called *barik*. The village priest, *disari* performs all religious rites. He also acts as a medicineman-cum-astrologer. Their religion is autonomous tribal religion. The village priest, Disari performs all religious rites. He also acts as a medicine man. Bandapana Parab, Dussera, Pus Parab, Chait Parab are their major festivals. The demographic profile of Gadaba ST in Odisha state is presented in the statement given below.

Demographic profiles of Gadaba tribe in Odisha

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	36284	36698	72982
2	Literacy rate	33.02	9.64	21.23
3	Workers	21102	17319	38421
4	Child population	-	-	12872
5	Sex ratio	1011 females /1000 males		

(Source: 2001 Census)

Our investigation on Gadaba health practice was focused on Kandiguda, Kantiguda and Sankein villages in Lamtaput block of Koraput district. The villages comprise 84 households and have 269 population out of which, 147 are male and 122 are female. The other ethnic group of the study villages is Pano, a SC community. The investigation focused on ? respondents including 2 magico religious leaders and 3 local healers.

11. Gond

In Odisha the Gond are found in Nowrangpur, Nuapada, Bolangir and Kalahandi districts. Culturally, the tribe is dichotomized into the primitive group and the acculturated and hinduised group. The tribe has exogamous totemic clan divisions. They peruse cultivation, wage and agrl. Labour. Chait Parab, Dussera, Baisakhi are their major festival. Marriage is prohibited between brother clans. Cross-cousin marriage and marriage by negotiation are common. Marriage by service is socially permitted. Marriage is celebrated with dancing, singing and drinking. The Hinduised Gonds get the services of Brahman priest, barber and washer man. The Primitive section has its own tribal priest. The Hinduised section observes death pollution for 10 days. They erect menhirs to commemorate the dead. They are polytheists. The Hinduised Gonds

abstain from eating beef and drinking liquor. The demographic profile of Gond ST in Odisha state is presented in the statement given below.

Demographic profiles of Gond tribe in Odisha

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	390073	392031	782104
2	Literacy rate	63.27	30.82	46.96
3	Workers	221083	165138	386221
4	Child population	-	-	125156
5	Sex ratio	1005 females /1000 males		

(Source: 2001 Census)

The health practices of Gond tribe were investigated at three villages, namely Balisankar, Simudapara, and Parua of Nowrangpur district. In these study villages the total numbers of households are 207 and total population is 853, out of which, 432 are male and 421 are female. Besides Gond, the other STs of the study villages are Munda, Oran, Khadia and the other ethnic groups of the study villages are SCs like, Keuta and Domb. The investigation was focused on 90 respondents including 3 magico-religious leaders and equal number of local healers.

12. Kisan

The Kisan tribe is mainly found in Sundergarh, Sambalpur and Jharsuguda districts. The Kisan settlements are generally uniclan and homogenous. In multi-ethnic villages they live in separate hamlets. Kisan family is mostly nuclear and monogamous. Few cases of extended family are also found. Family is nuclear, patrilocal and patrilineal. Kisan is an endogamous community which is divided into a number of exogamous totemic septs. Their main occupation are cultivation and labour. Marriage through negotiation is regarded as ideal and prestigious. Bride price is prevalent and cross cousin marriage is preferred. The other modes of marriage are by capture, elopement and service. The Kisan observe birth pollution for a period of seven days. The community practises both burial and cremation for the dead. They observe death pollution for eleven days. The Kisan profess Hinduism and worship Hindu deities along with their traditional tutelary deities like Gosain, Bhim Devta, Budha Band, Baghia, Samlei, etc. they

observe festivals like, Gamha, Pus Punei, Dussera, Kalipuja, Diwali, Dola, Soharai, Karma, Jitia, Nuakhai, etc. Their traditional community priest Kalo or Soin officiates in the rituals and Brahmin priest worships the deities. The community has its own traditional council known as Jati Samaj headed by a Sardar or Kotwar whose office is hereditary. The other office bearers are Mukhia, the village head and Barika, the regional head. The Jati council settles intra community disputes and acts as the custodian of social values, traditions and customs. The demographic profile of Kisan tribe in Odisha state is presented in the statement given below.

Demographic profiles of Kisan tribe in Odisha

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	161339	160253	321592
2	Literacy rate	64.43	35.88	50.19
3	Workers	87483	66877	154360
4	Child population	-	-	48572
5	Sex ratio	993 females /1000 males		

(Source: 2001 Census)

Our investigation was focused on two villages, namely Badapada and Mantrimunda in Kuchinda block of Sambalpur district. Both the villages have 118 households with a total population of 456, out of which 238 are male and 218 are female. The only other ST group of the study villages is Dhibar/Dewar, who have 15 households. The investigation was focused on 40 respondents including 5 magico religious leaders and 5 local healers.

13. Koya

The Koya people are found in the district of Malkangiri of Odisha. They are famous for their settlement and house pattern. The Koya village settlements are unique having houses quite spread out. Typical palisade bamboo fencing all around is a distinguishing feature of Koya settlements. Very close to their settlements one notices stone pillars and wooden posts erected in memory of their dead ancestors. Each house, its courtyard and adjoining kitchen garden are nicely fenced by bamboo splits. They have mud houses beautifully thatched by a type of jungle grass. Koya society is divided into five broad social divisions, katta, such as, Kowasi, Sodi, Madkami, Madi and Padiyami. Each social division is further subdivided into several groups and

sub-groups. Marriage is termed as pendul. They practice marriage by service and exchange. Koya parents have the liberty to select brides. Marriages by service, intrusion, and exchange are also practiced. The custom of bride price is prevalent. Their occupation are hunting, food gathering, shifting cultivation, forestry. Livestock Rearing, Agrl. Labour and Basketry. They have two important deities: Bijagudi, house deity and Gudimata, village deity. They worship Mother Earth as village deity. Their major festivals are Bijapandu, Kurumpandu, Dussera, Kartapandu, Ikkpandu, Markapandu, Ittpandu, Tadipandu, and Sikudpandu. They observe rites de passage. Secondary burial ritual is observed most elaborately. The traditional village council is headed by Pedda, the village headman, and Perma, the priest. The posts of Pedda and Perma are hereditary. The shaman, magician-cum-herbal medicine man is known as wadde. Kotwal, hailed from the Domb scheduled caste community and also acts as the messenger. Their religion is autonomous tribal religion. The demographic profile of Koya ST in Odisha state is presented in the statement given below.

Demographic profiles of Koya tribe in Odisha

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	60975	61560	122535
2	Literacy rate	17.19	6.36	11.73
3	Workers	35516	30725	66241
4	Child population	-	-	21522
5	Sex ratio	1010 females /1000 males		

(Source: 2001 Census)

Our investigation on Koya health practice was focused on two villages, like MV33 and Gonglaguda, in Korkunda block of Malkangiri district. Both the villages are homoogeneous in ethnic composition. These two villages comprise 82 households and have 314 population out of which, 167 are male and 147 are female. The investigation focused on 52 respondents including 4 are magico religious leaders.

14. Munda

The Munda populations are distributed in the district of Sundergarh, Sambalpur and Keonjhar districts. The Munda are divided into 4 sections Santhali, Nagpuria, Kolhani and Tamadia. Traditionally the Munda are an agrarian community. Occupationally, they are Settled Cultivators and Industrial Labour. Clusters of clans maintain group solidarity and regulate

marriage and socio-economic relationships. The clan elders mediate in fixing marriage and bride price. Sing Bonga, the sun god otherwise called Dharam Debta is their supreme God. Other deities are Basuki mata, the Earth Goddess, Desauali, Marang Bonga, Karam Bonga, Laxmi, etc. Their priest, Pahan worships the deities on festive occasions at Sarna, the sacred grove located at the village outskirts. They practise both burial and cremation. Death pollution lasts for ten days and ends after purificatory rituals and feast. Their main festivals are called Sarhul, Karma, Jetia, Dussera and Sohorai. The demographic profile of Munda in Odisha state is presented in the statement given below.

Demographic profiles of Munda Tribe in Odisha

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	242266	237986	480252
2	Literacy rate	51.56	27.64	39.59
3	Workers	124351	89763	214114
4	Child population			90268
5	Sex ratio	982 females /1000 males		

(Source: 2001 Census)

Our investigation was focused on villages, Balisankar of Sundergarh district, Jamaradihi of Anugul district, and Dudipani and Baya Kumutia villages of Keonjhar district. The total number of Munda households in study villages is 277 and total population is 1624 out of which, 924 are male and 700 are female. The investigation was focused on 276 respondents including 2 magico religious leaders and 2 local healers.

15. Oraon

The Oraon people are found in Sundergarh, Sambalpur, Jharsuguda, Deogarh and Keonjhar districts. They are an agrarian tribe of Odisha. They live in multiethnic villages. The tribe comprises of several exogamous clans (Bargas) viz. Tirki, Lakda, Topo, Khalko, Minz, Barla etc. named after totemic plants, animals and objects. They practise adult monogamous and negotiated marriages. They have preference for cross cousin marriage. Bride price is prevalent. They peruse Cultivation, Agrl. Labour, Minning and Quarrying. They observe Phagu, Sarhul, Bisu-sikar, Sohorai, Jeth-jatra, Karma, Kalipuja and Dussera. They Oraon observe purificatory rites, chhati, on the tenth day. They practice either bury or cremate to dispose of their dead

depending upon the nature of death. Their traditional village council is constituted of the village headman, Mahato, priest, Naega, and the village elders. At the territorial level they have parha organization to settle inter-village disputes. In the recent past some of them have adopted Christianity. The demographic profile of Oraon tribe in Odisha state is presented in the statement given below.

Demographic profiles of Oraon tribe in Odisha

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	153934	154997	308931
2	Literacy rate	65.75	42.77	54.20
3	Workers	76921	54405	131326
4	Child population	-	-	51519
5	Sex ratio	1005 females /1000 males		

(Source: 2001 Census)

Our investigation was focused on two villages, namely Ghughar and Balisankar of Sundergarh district of Odisha. Both the villages have 271 households with a total population of 898, out of which 488 are male and 410 are female. The other ethnic group of the study villages is Keuta (SC). The investigation was focused on 105 respondents including 3 magico religious leaders and 5 of local healers.

16. Santal

Santals are predominantly found in Mayurbhanj and Balesore districts of Odisha. The Santal are divided into several totemic exogamous clans, Paris. Each clan is further divided into sub-clans, maximal lineages, Bansa, and minimal lineages, Kutum. Cultivation, Industrial Labour, Mining, Quarrying, etc. are their main occupation. They observe major festivals, like Erok-sim, Hari-har-sim, Iriguldi-sim, Jantkar, Saharai, Magha-sim and Baha. The common types of marriages permitted in their society are by negotiation, by elopement, by intrusion and by service. They practise junior levirate marriages also. They observe Janam Chatiar, purificatory ritual on the seventh or ninth day of birth, and natyam, name giving ceremony

within one year. Death rites are observed within ten to twenty days of death. Sing Bonga, Sun God otherwise called Thakur or Dharam is their Supreme Deity who is revered as the creator of the universe. Their important village deities are Marang Buru, Monreko Tureiko, Jaher Era, Gosani Era and Manjhi Haram. Besides there are a number of other deities like hill and forest deities, earth goddess (Basumata), ancestral spirits (Hapranko Bonga), household spirits (Abe Bonga) etc. The traditional village council is headed by the secular chief, Majhi assisted by Paramanik, the deputy chief, Naik, the village priest, Jog Majhi, the Moral Guardian, and Gadet, the messenger. At the inter-village level they have inter-village council called Pirha or Pargana. The demographic profile of Santals in study areas is presented in the statement given below.

Demographic profile of Santals in study areas:

Sl. No.	Parameters	Population		
		Male	Female	Total
1	Population	393386	383818	777204
2	Literacy rate	55.86	24.75	40.46
3	Workers	20575	20302	40877
4	Child population	-		142241
5	Sex ratio	976 females /1000 males		

(Source: 2001 Census)

In the present study our investigation mainly focused on Santals of Suhagpur in Mayurbhanj district and Basta villages Balesore district. The village is connected through jeepable, kutchra and pucca roads. The number of households in the study villages is 78 and their total population is 520, out of which 330 are male and 190 are female. Agriculture and wage earnings are the main occupation of villagers. Nearly 21% of population depends on forest collection and 30% on animal husbandry. Cattle is the main live stock of these peoples and poultry, sheep, buffalo are also domesticated. The study villages are homogeneous with Santal population exclusively. The investigation was focused on 87 respondents including 1 magico religious leaders and 2 local healers.

3.6 Ethnic composition and inter-community relationship:

Field investigation reveals that the study villages, where the Bonda, Chuktia Bhunjia, Desia Kandha, Munda, Koya and Santal live are homogenous villages. The other ST villages of

the study areas are found as heterogeneous ones. Their neighbouring communities are mostly SC communities, like Dom, Keuta, Dhibar, Kaibarta, Dhoba, Pano, Patra Tanti, etc. The ethnic composition of the villages in the study areas are presented in the following Table: 3.2.

Table: 3.3. Ethnic Composition of study villages

Sl. No	Name of Tribes	Name of Villages	STs			SCs	
			Names	No of HHs	Population	Names	No of HHs
1	Bondo	Mudulipada	Bondo	30	150		
		Padeiguda	Bondo	23	59		
2	Chuktia Bhunjia	Barakot	Chuktia Bhunjia	45	219		
		Cherichima	Chuktia Bhunjia	71	406		
3	Lanjia Saora	Serango	Langia Saora	15	55	Harijan	95
		Bhubani	Langia Saora	27	91		
4	Juang	Baya Kumutia	Juang, Bhuiya, Munda	240	1620		
		Gunasika	Juang, Bhuiya	75	225	Patra	24
5	Hill-Khadia	Kapand	Hill-Khadia, Kolha, Bhatudi	60	176	Dhoba	100
		Matiyagada	Hill-Khadia, Kolha, Bathudi	63	198	Kaibarta, Dhoba, Tanti	30
		Ghughar	Khadia, Oraon	100	568	Keuta	5
6	Paudi Bhuyan	Jamaradihi	Paudi Bhuiyan, Munda	68	431	Dhibara	8
7	Bhumij	Sundarapal	Munda, Majhi, Matia, Bhumija	90	260	Pano	30
		Basta	Bhumija, Khadal Rajuar Santala,	45	195		
8	Desia Kandha	Suhagpur	Desia Kandha	30	161		
		Basta	Desia Kandha	42	212		
9	Dharua	Talur	Dharua, Batra	110	268		
		Haladikund	Dharua	155	748	Doma	12
10	Gadaba	Kandiguda	Gadaba	37	149		
		Kantiguda	Gadaba	30	80	Harijan	15
		Sankhei	Gadaba	14	40	Harijan	22
11	Gond	Balisankar	Gonda, Munda, Oraonm, Khadia	77	268	Keuta	12
		Simuda Para	Gond	30	185	Harijan	10

		Parua	Gond	100	400	Harijan , Dom	5
12	Munda	Dudi pani	Munda	114	387		
		Daleisahi	Munda	76	179		
13	Kisan	Badapada	Kissan	50	200	Dhibar	3
		Mantri	Munda Kisan	68	256	Harijan	8
14	Koya	MV-33,	Koya	43	144		
		Gonglaguda	Koya	39	170		
15	Santal	Dudi Pani		33	129		
		Baya Kumutia		55	310		
16	Oraon	Balisankar	Ganda, Khaadia, Munda	157	492	Keuta	12
		Ghughar	Khadia, Bhuiya	114	368	Keuta	5
Total				2293	9760		401

Source: Field survey, 2012

Society is an ordered arrangement of human beings which provides solution to all human problems. It is a complex network of institutionalized inter human relationships, and not simply an aggregate of individuals. There would be no coherent social life unless the social relationship, which bind people together are institutionalized and predictable. The alternative to order is chaos. To maintain an orderly system of social relations, people have to be subjected to some degree of compulsion, they cannot at all times do, exactly what they like. Because often self-interest may incite compatible with the common good and therefore every society has some rules for constraining people's behaviors.

Tribal people have been in continuous touch with the castes Hindus and have been influenced by each other in various facets of language and social, cultural, religious life. The Gonds at village level claims to be superior to almost all other tribes under the study. The Gond generally sit together with other tribals but eat in separate pangat. They usually do not accept cooked food from others. So also the Kisan, who are comparatively agro centric, do not take pucca food from others. This is more observed among the married ones. However, there is no definite and intrinsic social relationship between the Gonds and Kisan. The Gonds are economically better up than that of the Kisans, Kharias and Oraons and hesitate to establish friendship or close relationship with these tribes. The Kisans maintain harmonious relationship with the Kharias. No tribe is prepared to accept the dominance of other tribe in the neighboring areas. But all tribes show their respect and gratitude to the Gonds. In economic sphere, the tribes

are inter-dependent to one another which are revealed through their different economic pursuits, determined by natural, social and cultural environment.

The principle of reciprocity and mutual economic obligations has come in to operation among the tribes and other communities covered under the study. Share cropping provides opportunity for economic co-operation among these tribes and castes. Sale and purchase of lands, SAPs and MFPs at times extend scope of inter and intra tribe economic interactions. Lending and borrowing also an important item of interaction among the tribes and castes covered under the study. To a limited extent barter is still in vogue in the PTGs (Bonda, Chuktia Bhunjia, Hill-Kharia, Juang, Bonada) areas. The weekly markets act as a place of interactions where the tribal and non-tribal people meet with one another and enter into interactions of different types. The weekly markets at their respective places serve as the center for disposal of their surplus articles and purchase of the goods for their day to day requirements. The markets serve them as places of contact of different tribal and non-tribal cultures, which help them bringing about changes in their life style.

Politically, each tribe and community has its own council (Tribe/Caste Sabha / Mahasabha, who guide and control their community people. Each association has no control or authority on others. Each one is powerful in its own sphere. With interdiction of Panchayatiraj system the Gond and Kisan are conscious of their political rights and duties, which guide and control other tribal groups.

All the aforementioned tribals in general and the PTGs in particular have a deep faith in spirits and supernatural powers and then relationship between these supernatural beings and the tribal communities is regarded as sacred one. All these tribes and more so the PTGs believe that performance of certain ritual worship and offerings of sacrifice bring health, happiness and good harvest, forest collections and successful hunting. All have ancestors worship for wellbeing. All these tribals observe Hindu puja and festivals like Nuakhai, car festival and dusshera which show the interactional process in the religious sphere. The tribals invite their friends from other communities namely mitras, makara and fullas with whom they have ritual kinship affiliation. Mostly the SC musicians' play music; SC artisans provide costumes and ornaments to the STs in all their rituals and festivals. The tribals and non-tribals in spite of their ethnic and cultural variation are mutually depended on each other along with the conflict and cooperation.

3.7. Economy and livelihood:

For the early to recent human beings and all tribal are depend upon nature for their primary needs as they are born and brought up in the forest. They are living long and trans-generational interaction with nature was summarized with indigenous knowledge system which serves their mundane needs as well as a crisis situation of life including health. Tribal economy is characterized as subsistence economy is based mainly in gleaning, hunting, fishing (e.g. the Birhor, Hill Kharia), or a combination of hunting and collecting with shifting cultivation (e.g. Juang, Paudi Bhuyan, Lanjia Saora, Kandha, etc.) even the so called plough using agricultural tribes do often, whenever scope is available, supplement their economy with hunting and collecting. Their subsistence economy is characterized by simple technology, simple division of labour, small scale units of production and no investment of capital. The unit of production and consumption is limited to the family and lineage. Subsistence economy is imposed by circumstances which beyond the control of human beings, poverty of physical environment, ignorance of efficient techniques of implicating natural resources and lack of capital investment. It also implies existence of barter and lack of trade.

Shifting cultivation is not only an economic pursuit of some tribal communities, especially the PTG sections but it accounts for their total way of life. Their social structure, economy, political organization and religion are all accountable to the practice of shifting cultivation. Several large tribes such as Santal, Munda, Ho, Bhumij, Oraon, Gond, Kandha, etc, are settled agriculturists, though they supplement their economy with hunting, gathering and collecting. The tribal agriculture of Odisha is characterized by unproductive and uneconomic holdings, land alienation indebtedness, lack of irrigation facilities in the undulating terrains, lack of easy or soft credit facilities as well as use of traditional skill and primitive implements. Tribal community practicing settled agriculture also suffer from further problems, viz, want of record of right for land under occupation , land alienation, problem of indebtedness, lack of power for irrigation, absence of adequate roads and transport, seasonal migration to other places for wage earning and lack of education and adequate scope for modernization.

Sizable agglomeration of tribal populations like Munda, Oraon, Kisan, Santal in Odisha has moved to mining, industrial and urban areas for earning a secured living through wage-

labour. During the past three decades the process of industrial urbanization in the tribal belt of Odisha has been accelerated through the operation of mines and establishment of industries. Mostly tribes from advanced tribal communities, such as Santal, Munda, Ho, Oraon, Kisan, Gond, etc, have also taken to this economic pursuit in order to relieve pressure from their limited land and other resources.

The economy and livelihood pattern of the ST people in the study areas are furnished in the Table 3.3.

Table 3.4: Tribal economy and livelihood pattern in study villages

Sl. No.	Name of PTGs/ STs	Districts	ST HHs	Distribution of ST HHs in different Occupations				Average Annual Income per HH
				Cultivation & Animal Husbandry	Forest Collection	Business & Service	Others including Wage Earning	
1	Bondo	Malkangiri	53	10	8	2	33	7900
2	Chuktia Bhunjia	Nuapada,	116	33	21	13	49	7500
3	Lanjia Saora	Gajapati	42	9	5	3	25	9300
4	Junag	Keonjhar,	315	147	67	45	56	
5	Hill-Kharia	Mayurbhanj, Sundergarh	223	134	43	41	5	9200
6	Paudi Bhuyan	Anugul	68	11	6	4	47	5900
7	Bhumij	Baleswar	130	21	49	11	49	7300
8	Desia Kandha	Phulbani Baleswar	72	31	11	11	19	9600
9	Dharua	Koraput	265	102	31	33	99	7700
10	Gadaba	Koraput	44	12	7	5	20	10700
11	Gond	Nabarangpur, Sundergarh, Anugul	207	90	25	11	81	9100
12	Kisan	Sambalpur	118	75	21	17	5	8300
13	Koya	Malkangir	82	11	13	5	53	8900
14	Santal	Mayurbhanj, Keonjhar	88	33	24	9	22	11580
15	Munda	Sundergarh, Anugul, Keonjhar	191	85	32	43	31	7800
16	Oraon	Sundergarh	271	113	38	24	96	4900

Total	2293	917	398	277	690	8379
--------------	-------------	-----	-----	-----	-----	-------------

Source: Field survey, 2012

According to the above table out of the 2293 total HHs investigated, most of the households peruse agriculture along with animal husbandry (39%), collection of MFPs (17%), and work as industrial and mining workers (12%). Their average annual income comes to Rs. 8379/- per household.

CHAPTER-IV

Traditional Health & Hygiene Culture among Tribes

4.0 The tribal people of Odisha have been in the practice of preserving a rich heritage of information on medicinal plants and their usage. These people have faith in their traditional system of health care and generally practise it. They have their own traditional physicians who use these plants as their medico material. They have rich and outstanding traditional knowledge and wisdom regarding material for healing of common ailments. They have both the know-how and do-how for preparing the medicine and its methods of use. Tribal Traditional and folklore medicine handed down from generation to generation is rich in domestic recipes for common ailments. These medicines encompass protection and restoration of health. Unfortunately, this information is yet to be collected systematically and comprehensively and maintained in databases in a manner they would help in protecting their intellectual property rights (IPR).

Analysis in the review of literature respecting the cultural aspect of tribal health and health related behavior generates the following propositions, which show their cultural attributes attached to the concept of health and diseases.

1. Tribes in general attribute every diseases or misfortunate to a particular evil spirit pointing at supernatural theory of disease causation and treatment.
2. The whole village or the community may be perceived as affected by such diseases and healing must be done at community level.
3. When the women see a modern health care provider in case of other diseases, STI diseases are closely guarded and treated with the traditional healers.

Here under the findings of the field investigation on the traditional health and hygiene culture among tribes is discussed with a view to test the above said proposition besides others.

4.1 Health & Nutritional Status:

Health and disease are measures of the effectiveness with which human groups, combining cultural and biological resources, adapt to their environment. Every culture irrespective of its simplicity and complexity has its own beliefs and practices concerning diseases. The culture of a community determines its health culture. Health problems and practices of any community are profoundly influenced by interplay of complex social, economic and cultural factors. Tribal people of Orissa living in variable eco-system face with health and nutritional problems as their diet are deficient both in quantity and quality. Most of them suffer from malnutrition which affects their health status. While health is a state of complete physical, mental and social wellbeing and not merely absence of disease or infirmity, nutrition is defined as the science of food and its relationship to health. On the other word, it refers to the condition of physical health and wellbeing of the body as related to the consumption and utilization of food for growth, maintenance and repair.

The problems of shortage of food, poverty, population expansion, malnutrition, health, hygiene and disease burden still persist among 60% of the tribal and rural population in India. Proper health and balanced nutrition are, therefore, considered as some of the prime requirements for application of biotechnology in improving the quality of life of rural poor. Nutrition is prime concern of all living organisms. The quality and quantity of food available play an important role in determining the health and well being of individuals and the populations in general. Its applications involve social, physical, biological and medical sciences. These encompass from food production, procurement and consumption, socio-economic institutions, cultural practices and beliefs associated with food to biological needs of food, nutritional deficiencies affecting growth and development, fertility, mortality, morbidity, health and disease, nutritional variations as a mean as well as consequences of adaptation, natural selection and, in short, the whole process of biological evolution.

One of the major areas of nutrition is intimately connected with health and well being of the people. It is said that healthy people are a nation's most valuable asset on whom rests the nation's future. Children of today are the builders of tomorrow who will man different walks of the national life. The caliber of each of them will depend on their state of mental and physical growth. It is well established that the course, both body and mind takes to grow, is determined by heredity but to a large extent influenced by environmental (epigenetic) factors particularly the nutrition.

Like India, Odisha is yet to achieve the problem of malnutrition particularly in tribal areas. Malnutrition results in poor health and the worst victims are the children in tribal areas. One third of child mortality is attributed to malnutrition. The results of a study among Kondhas of Odisha indicate that 74.30 per cent or 3/4 population in the sample is under fed. As per Body Mass Index the men seem to be better nourished than women and 75 per cent children are under nourished.

Understanding of the nutritional needs of adult humans is important not only because the healthy people are more efficient and more productive in all spheres of life but also in the national economic growth as well. Healthy people are also capable of producing healthy progeny too who, in turn, will grow up to become future healthy adults. The nutritional status of adults is an index of nutritional status of a community and by comparison with normal or standards can bring out nutritional deficiencies in population due to either inadequate or inappropriate diet or due to ecological, ideological, socio-economical or epidemiological factors.

The clinical assessment of nutrition of the tribal communities shows one or more signs or symptoms of common deficiencies as listed in the Table-3. Numbness and tingling of hands and feet due to vitamin B1 deficiency is very common. High incidence of nutritional deficiency in some cases especially among vulnerable segments like infants, children, pregnant women, and nursing mothers is a matter of concern among the tribals. These signs and symptoms are largely non-specific and clinical examination alone is not sufficient to establish a clear and definite diagnosis of nutritional diseases and deficiencies, but dietary surveys and biochemical data incorporated with clinical assessment may confirm the findings of inadequate nutritional standard. Future studies will throw more light on the health problems of tribals of Odisha.

The four tribes, namely, Bhoatra, Gond, Kandha, and Paraja in the present study manifested variable nutritional status with regard to levels of hemoglobin and different grades of anemia among both boys and girls separately as well as in combination (Table 4.1.2). Maternal malnutrition is common among the tribal women.

Table 4.1.1 Different grades of anemia among four tribal populations of Orissa

Grades of anemia	Name of Tribe
------------------	---------------

	Bhatra (%) (N=166)	Gond (%) (N=219)	Kandha (%) (N=254)	Paraja (%) (N=176)
Boys:				
Severe	5.5	2.6	2.4	2.5
Moderate	23.6	31.4	26.5	10.0
Mild	41.7	54.9	41.0	49.2
Normal	29.2	11.1	30.1	38.3
Girls:				
Severe	0.0	0.0	0.0	3.7
Moderate	12.6	30.0	11.8	5.6
Mild	46.3	57.1	35.3	51.8
Normal	41.1	12.8	52.9	38.9
Boys and Girls Combined:				
Severe	2.4	1.8	1.7	2.9
Moderate	17.4	30.9	22.2	8.6
Mild	44.3	55.6	39.3	50.0
Normal	35.9	11.6	36.8	38.5
Severe= Hb<7.0 g/dl; Moderate = Hb 7.1-10.0 g/dl; Mild= Hb 10.1-12.0 g/dl; Normal= Hb>12.1 g/dl				

Nutrition is prime concern of all living organisms. The quality and quantity of food available play an important role in determining the health and well being of individuals and the populations in general. Its applications involve social, physical, biological and medical sciences. These encompass from food production, procurement and consumption, socio-economic institutions, cultural practices and beliefs associated with food to biological needs of food, nutritional deficiencies affecting growth and development, fertility, mortality, morbidity, health and disease, nutritional variations as a mean as well as consequences of adaptation, natural selection and, in short, the whole process of biological evolution. One of the major areas of

nutrition is intimately connected with health and well being of the people. It is said that healthy people are a nation's most valuable asset on whom rests the nation's future. Children of today are the builders of tomorrow who will man different walks of the national life. The caliber of each of them will depend on their state of mental and physical growth. It is well established that the course, both body and mind takes to grow, is determined by heredity but to a large extent influenced by environmental (epigenetic) factors particularly the nutrition.

The results of a study among Kandhas of Odisha indicate that 74.30 per cent or 3/4 population in the sample is under fed. As per Body Mass Index the men seem to be better nourished than women and 75 per cent children are under nourished. Like India, Odisha is yet to achieve the problem of malnutrition particularly in tribal areas. Malnutrition results in poor health and the worst victims are the children in tribal areas. One third of child mortality is attributed to malnutrition.

Individuals differ in their morphology because of their differences in genetic make-up and, therefore, carry various metabolic activities at different rates. Similarly, some individuals may need more nutrition while the others need less to achieve a similar morphology. The nutritional needs for energy expenditure vary with age, sex, weight, body proportions, hormonal and physical activity of an individual.

Understanding of the nutritional needs of adult humans is important not only because the healthy people are more efficient and more productive in all spheres of life but also in the national economic growth as well. Healthy people are also capable of producing healthy progeny too who, in turn, will grow up to become future healthy adults. The nutritional status of adults is an index of nutritional status of a community and by comparison with normal or standards can bring out nutritional deficiencies in population due to either inadequate or inappropriate diet or due to ecological, ideological, socio-economical or epidemiological factors.

The clinical assessment of tribal communities shows one or more signs or symptoms of common deficiencies as listed in the Table-3. Numbness and tingling of hands and feet due to vitamin B1 deficiency is very common. High incidence of nutritional deficiency in some cases especially among vulnerable segments like infants, children, pregnant women, and nursing

mothers is a matter of concern among the tribals of Chhattisgarh. These signs and symptoms are largely non-specific and clinical examination alone is not sufficient to establish a clear and definite diagnosis of nutritional diseases and deficiencies, but dietary surveys and biochemical data incorporated with clinical assessment may confirm the findings of inadequate nutritional standard. Future studies will throw more light on the health problems of tribals of Odisha.

Data regarding the daily mean nutrient composition of food consumed by the Juang children (1-6 years) as compared to ICMR norm is given in Table 4.1.3.

The food consumption of Juang children as estimated by SCSTRTI (1996) is not only quantitatively inadequate, but also qualitatively deficient. Our observation reveals that there is nutrient (quality) deficit in the food of Juang children. The deficiency noticed in the nutrients are energy (-48.03%), Protein (-6.36%), Iron (-34%), Vitamin A (-93%), Vitamin B-1 (-60%) and Vitamin B-2 (-14%). Reversely their food is enriched with excess Calcium (+226.35%) and Vitamin C (+20%). The calorie and protein content in their food are estimated at 701.6 (kcal) and 18.26 mg. respectively which are below the ICRM standard.

Table 4.1.2 Mean nutrient composition of food consumed by Juang children (1-6 years)

Sl. No.	Nutrient	Consumed (mg.)	Nutrient recommended by ICMR (Mg.)	Remark Approximate% Deficit (-) Surplus (+)
1	Energy	701.6 (kcal)	1200-1500 (1350) kcal	(-) 48.03
2	Protein	18.26	17.22 (19.5)	(-) 6.36
3	Fat	0.83	-	-
4	Minerals	2.59	-	-
5	Carbohydrate	104.51	-	-
6	Calcium	90.94	0.4-0.5	(+)226.35
7	Iron	9.95	15-20	(-) 34
8	Vitamin-A (B. Carotene)	70.8	1000-1200	(-)93
9	Vitamin-B(Thiamine)	2.412	6-8	(-) 60
10	Vitamin-B ² (Riboflavin)	0.60	0.7-0.8	(-) 14
11	Niacin	3.83	-	-
12	Vitamin- C	35.9	30.50	(+) 20

Source: SCSTRTI

The above discussion shows that the food of the Juang children is deficient both in quantity and quality. As a result, the incidence of malnutrition is very high among them.

The anthropometric measurements like, the weights and heights of 100 Juang children (0-6 years) were taken to assess their nutritional status. It is revealed that 86% of the children were of less weight. About 92% of the total children below 3 years of age 81% of the children within 3 to 6 years of age are found with loss of weight. Thus, the incidence of malnutrition among children below 3 years of age is higher than the children in the age-group of 3-6 years. The Juang children up to 3 years of age generally and within one year particularly depend on their mothers' milk as food. Hence, loss of weight among them may be due to the poor food intake including their mothers' milk.

The height measurements of Juang children within 6 years of age show 77% malnutrition cases among them. Age-group wise analysis reveal that the extent of malnutrition is highest (84.61%) in the age-group of 0-3 years as against the age-group of 3-6 years where the number of cases reported constitute 78.50%. The grades of malnutrition among 62 Juang children (0-5 years) were obtained by measuring the Mid-Upper-Arm-Circumference with the help of tricolor (MUAC) strip. The findings showed 20.98% of severe and 40.32% moderate malnutrition cases among them. Only 38.70% children are reported to have normal health.

From the height, weight and MUAC measurement analysis it is concluded that the nutritional status of the Juang children is far below the recommended standard. Such a state is conditioned by food inadequacy of the children and their mothers. Moreover, the Juang have a wretched economic living condition. They are primitive and mostly thrive on primitive agriculture (Sweedon cultivation), food gathering and sale of fire wood. They are mostly poor and fed far below their bodily needs. The phenomenon of their food inadequacy force them to depend upon such types of food as mango kernel, tamarind seeds, sal seeds, tender-bamboo-shoots, mahua flowers and the like. Inadequate food intake results in malnutrition and other deficiency diseases among them.

The childhood malnutrition among the Juang mostly affects their growth in later state. Moreover a Juang girl child is not given adequate nutritious food. During pregnancy the expectant mother is underfed. Hence the prospective child, in mother's womb does not met with the desired nutrients. So there is likelihood that the child at birth may inherit malnutrition. After six months up to two years the children are not given proper food, other than mother's milk. The

existing provision of supplementary feeding programme is hardly compensating the nutritional gap of children.

4.2 Food and drinking habits and seasonal variations:

Majority of tribal population of Odisha live in forest ecosystem and has its own socio-cultural pattern; tradition and typical food practices. Most of these tribal have small or marginal land holdings. They grow food grains for 8-10 months, however, for rest, they depend on the forest. The tribal people are mostly dependent upon various species of wild food. Mostly their diet comprises variety of unconventional foods, viz., edible forms of flowers, fruits, tubers, leaves, stems, seeds and wild mushrooms.' Tribals mostly eat vegetables of leafy varieties, which grow as wild weeds and depend on such natural products for their food in times of scarcity or when the staple food is in short supply.

According to one eye estimate, 80 % of forest dwellers in Odisha depend on forest for 25 to 50 %of their annual food requirements. There is some report on the general food habits and dietary pattern of various tribal populations, but no authentic literature on such uncultivated wild tribal plant foods is available. In tribal areas of Odisha the larger part of the diet is obtained from locally available and produced food materials. Religious customs and local traditions relating to feasts, fasts and food taboos do have a bearing on the dietary pattern of the people. There are three major sources of food for tribal population; these are (I) their own crop fields, (II) their local forest and water resources and (III) local market. Availability of food grain, like rice, wheat under PDS at subsidized Govt. rate is an additionality.

Tribes in Odisha cultivate land; grow cereals and millets such as ragi. The staple food among the tribals is rice, maize, millet, wild fruits, etc. though they are fond of ragi gruel. They prepare a concocted material which is known as "Madia Paje". It is made from grounded rice and millets that is kept overnight for fermentation after boiling. Vegetables, cereals (dal), fish, etc. are added to develop taste. Liquor (Mahua) forms one of the most important constituent of their daily diet which is taken by men as well as women. They are addicted to mohua and salap liquor. Consumption of such alcoholic drinks aggravates liver diseases prevalent amongst them due to endemicity of malaria. This causes hepato-splenomegaly (enlargement of liver and spleen).

The non-vegetarian foods such as pigs, mutton, chickens, fish, crabs, field rats are taken as and when available. They take buffalo, goat and pork meat, though irregularly. These animals

are not slaughtered in hygienic or healthy conditions. In their daily diet, fats and proteins are inadequate; this leads to various types of deficiencies. Inferior diet, semi-starvation and unhygienic living conditions give rise to several diseases. Their farm produce suffices for hardly 5-6 months requirements; for remaining 6-7 months every year, they have to depend upon wild roots, fruits, flowers and leaves of wild plants. Fruits such as mango and jack provide food to tribals for about 1-2 months. Food values, and harmful effects, if any, of these wild items of forests are unknown; they may cause several types of allergies and physiological impairment.

Tribals have their dwelling on the hill-top, sub-mountainous region or barren land which is deprived of iodine, resulting in iodine deficiency. This leads to various iodine deficiency disorders. The oil of wild seeds “Tora” is used for cooking and other purposes including applying on injuries. Slash and burn type of shifting cultivation resulted in considerable degradation and shrinking of forests. The disappearance of wild life in turn has deprived them of their traditional sources of proteins. Such deficiencies, both qualitative and quantitative, have resulted in malnutrition.

There is of course seasonal variation of food for people as they cannot ensure steady supply of food materials for the consumption of their family. Their harvest and post-harvest period extends from November to March, during which they depend on the crop yields of their lands. Hereafter they depend on the nearby forest for food. From April to June they completely depend on the various types of wild berries, palm fruits and juice, date and palm juice, cashew fruits, mangoes, jack fruits, pine apple, orange, banana, papaya, kendo, sago palm juice, etc. and from August to October the acute lean period depend on seeds of tamarind, mango, jack fruit, palm, bamboo-shoot and wild yarns and tubers. The tribal people eat three times a day when food is available. During morning and mid day they take millet or rice gruel and eat simple meal of cereals before dusk. This is the usual pattern of intake among the tribal. *Teniasolium*, *T. bovis*, *Ascarislumbricoides* (tape worm and round worm), etc., is high due to their food habits. They consume domesticated piggery. Dental diseases are also very common among the tribals in study areas.

The drinking habits in the tribal societies of Odisha have been widely prevalent. The preparation of liquor has been reported from many tribal societies of Odisha. Their importance is

evident from multiplicity of customs and regulations that developed around the production and use of drinks in different tribal societies. The sentimental attachment of tribal with one kind of liquor or the other evident among the Odisha tribes. Drinking often become part of social milieu from time immemorial. The beverages often become central in most valued personal, social and magico-religious occasions. It is reported from the respondents that the use of alcohol is an integral part of the ceremonies and also as a concomitant of their religious performances. They have been preparing and consuming various type of liquor on festive occasions, such as marriage, birth and death rites and other ceremonial events.

The indigenous beverages prepared by fermentation of rice and millets have been the favorite drink of tribal of Odisha. Rice-beer (Handia/Pachhi), toddy extracted from date-palm, salap drink extracted from sago-palms, ragi liquor and mahua liquor constitute the varieties of indigenous intoxicating drinks consumed by different tribes of Odisha. In North Odisha handia is favourite drink of the STs as they cool off after a hard day's work. Though handia sells throughout the year, but the intake doubles during summer. Handia is a country liquor made of fermented rice and herbs. It is a normal drink if prepared properly, but adulteration makes it harmful. It becomes spurious when urea is used for quick fermentation and gives handia a kick. Tribals believe that it works like medicine for diseases, like jaundice, stomach disorder and sunstroke. People claim the brew keep the body cools. It is part of tribal culture and tradition for ages too. Handia is consumed during festivals and for merry-making. It's also offered to village deities during puja. People also deal in handia to earn a living and make quick bucks. Besides the handia and taddy, the distilled liquor is also consumed by the tribal in different parts of tribal Odisha. The tribal of Odisha resorts drinking to escape from pain and miseries of day to day economic hardship. From psychological point of view the indigenous liquor provide them with required comfort, relief and vitality. It is cheaper and hygienic in comparison to other food items. The drinking behaviors of tribal of Odisha are related to the living conditions. It acts an agent of reduction of anxiety. The Food and drinking habits of each of the tribes as gathered through FGDs at sample villages is discussed as follows.

The gruel prepared from ragi and other minor millets is the staple food of Bonda. They like to take rice particularly on festive occasions. Ordinarily they take gruel with boiled green leaves or vegetable or roasted dried fish as a side dish. Sometimes they add onion, chilly, mango

or tamarind to the main food when vegetables etc., are not available. Besides, they collect seasonal flowers, roots fruits, bamboo shoots and mushrooms for food purpose. During the summer season most of them primarily depend on jackfruit and mango. They are fond of non-vegetarian items like fish and meat. They catch fish in the streams for their own consumption. They hunt animals and birds and eat their meat. They eat beef, buffalo flesh, mutton, pork and chicken on festive occasions. They do not milk cow nor do they take milk or milk products. Green jackfruits are processed and boiled for consumption. During rainy season they take the kernel of the mango when there is no sufficient food stud. Flesh of animals and fish are dried and preserved for future eating during rainy and winter seasons. No Bonda people are allowed to eat new wild fruits before the celebration of Pus Parab, mango and jackfruits before the Chaiti Parab, and new rice before the Magh Parab. Further the vegetables which drops down from the plants on the ground are not eaten. The Bondas usually prepare and take four types of alcoholic drinks. These are, Safung (Sago palm juice), Pandom (beer prepared from cereals), Bounsagur (a spirit of Mahua flower) and Ulinsagur (spirit prepared from mango), of these dinks, Safung (Sago palm juice) which is the most common and favourite drink is taken both as a beverage and as a food. The Bondas, male and female and young and old, are inveterate tobacco smokers. Tobacco powder rolled in dried sal leaf like a cheroot is smoked. Many of them also chew tobacco. Children above 8 to 10 years of age are found smoking and chewing tobacco.

Rice is the staple food of the Chuktia Bhunjias. Sun-dried rice is most common among them. The women do not take parboiled rice on ritual ground. The men and women are non-vegetarian. But the women are forbidden to take chicken due to some customary injunctions. While the Chuktia Bhunjias consider domestication of pigs defiling and polluting. Various preparations of millets and vegetables cooked with rice gruel are their food habits. Their diet is also supplemented by forest foods, like roots and tubers, fruits and mahua flowers. The Chuktia Bhunjias are completely teetotalers and in this respect they stand distinctly separate from other tribes of the State. Their drink comprises of tea, both men and women are very much addicted to tea. As supply of milk is a problem among the Bhunjias, raw tea not mixed with milk is their common drink. Tobacco is very popular among them. It is smoked by rolling it in either sal or kendu leaves or chewed by making it powder. But the habit of taking tobacco and smoking country bidi or cigarette is confined to men only and women are completely free from this habit.

Rice is the staple food of Kharia/Hill-Kharia. The rice diet is supplemented by cereals like, mandia, maize, janha and different seasonal edible roots and tubers, honey, greens, arrowroots, nuts berries, flowers mushrooms, etc. They prefer watered rice, which is taken with salt, chilies and boiled green leaf. During rainy seasons they grow vegetables such as pumpkins, chilies, gourds for consumption. They rarely consume dal. They occasionally take meat of wild animals and birds, mutton, chicken but never take beef. They catch fish in hill streams and take fish and dry fish. On festive occasions they take rice cakes along with sacrificial meat of goat and fowls. During summer they take ripe and unripe fruits, like jackfruits and mangoes. They cook curry of the unripe jackfruits. They make and eat pickle of unripe mangoes and sweet pulp and jelly of ripe mangoes. The adult eat twice or thrice and children many times in a day. They drink various types of liquor such as mahua liquor, rice beer, toddy from date palm juice.

Rice is the staple food of Juang and rice is supplemented by millets like Ragi, Jawar and Maize grown in the plain and kitchen garden. Rice, small millet, pulses, rice cake and roots, honey are important items of diet. Red ants and flying ants are their popular delicacy. They eat beef after sacrifice, tiger and monkey fish. Do not take carrion, though afresh tiger kill is not a taboo. The Juangs earn their livelihood by cultivating podu and plain fields in the valley bottoms besides collecting different varieties of edible green leaves, fruits, roots, and tubers they do occasional hunting and fishing for supplementing their diet. Cash crops like mustard and niger, produced extensively are exchanged for paddy and rice. Rice or millet is taken with some vegetables or green leaves which are grown or gathered from the forest. Pulses like mung, kulthi and baragudi are occasionally added to their food on festive occasions. Their diet is neither regular nor standardized. Quantity and quality of food consumed depends on its availability at the time of seasonal rhythm of agricultural cycle and forest collection. In summer, fruits like jack-fruit and mango form their principal diet. Various types of roots and green leaves in the rainy season and edible tubers in winter supplement their diet. The powdered mango kernel is used for making cakes. Generally they take two principal meals in a day, one before noon and another in evening with a pinch of salt. Sometimes dal or green leaves boiled with a little turmeric powder and salt serve as season meals are taken thrice a day. On festive occasions, meat and pork are added to the main diet. Mutton, chicken and eggs are also used as food when such items are available particularly during festivities. Occasional hunting provides them with animal protein. Usually they eat whenever they get the meat of pig, fowl, goat, bear, rat, rabbit, pigeon,

and varieties of birds. They do not like to take milk and milk products. Their techniques of preparing food include frying, boiling, baking and roasting. Their cakes are prepared from rice and ragi flour on special occasions. The main alcoholic drinks taken by them consist of alcoholic drinks. Though expensive, it is served during big festivities. The liquor is variously used in their society. It serves as medicine for curing minor diseases like fever, headache, etc. and sometimes as a substitute of food. They believe that, it provides energy to work. It is also offered to the deities and ancestral spirits.

Rice is the staple food of Paudi Bhuyan. The rice diet is supplemented by cereals like, ragi, suan, gulchi, kngu, maize and pulses, like black grams. They take different kinds of dishes of vegetables, green leaves, mushrooms, tubers. During summer they take ripe and unripe fruits, like jackfruits and mangoes. They cook curry of the unripe jackfruits. They make and eat pickle of unripe mangoes and sweet pulp and jelly of ripe mangoes. The kernel of mango is also eaten by them. They make cake out of powdered kernels by baking. They mostly depend on forest food like, tubers, rhizomes, leaves, shoots, different fruits, flowers, seeds, honey and animal and bird food. On festive occasions they take ragi and rice cakes along with sacrificial meat of goat and fowls. The adult eat twice or thrice and children many times in a day. They drink various types of liquor such as mahua liquor, rice beer, toddy from date palm juice. Rice beer is prepared at home and mahua liquor is purchased. Often they drink liquor as substitute of food.

The main food of the Saoras/Lanjia Saoras is gruel (Pej or Jau) prepared out of rice or ragi or Jana or some other minor millets. Besides, they take vegetables grown in kitchen gardens and fruits, roots, leaves, tubers and honey collected from forests. Rice is considered as the ideal food. Roots, tubers and mushrooms collected from jungle are eaten during rainy season. Kernel of mango and seeds of tamarind are also taken by some persons during summer. Pulses are mostly eaten in winter and spring when these are harvested from swiddens. The quality as well as the quantity of the food taken varies from season to season depending upon their availability. Among the various items of food, gruel is taken throughout the year whereas the other items are seasonal and occasional. A meal of the Saoras consists of gruel prepared out of either ragi, jana, gphantia or rice with salt and chilli. The non-vegetarian food is much more relished than the vegetarian food and no festival is observed and no guest is entertained without non-vegetarian food. Salap liquor is most favourite drink of the Saoras. Of all the alcoholic drinks Mohua liquor

is preferred first and rice beer come next in importance. Both men and women irrespective of age drink liquor and no ceremony, social or ritual is observed without liquor. The Saoras are inveterate smokers. They roll some tobacco in a piece of dried sal leaf and smoke it.

Rice and ragi are the staple food of the Bhumij. The rice and ragi are supplemented by maize, suan, janha, bajra, kosala. They take dal such as biri, kulthi, and vegetables like brinjal, papaya, ladies finger, gourd, pumpkin, drumstick, etc as curry items along with the rice and ragi. Also, they are non-vegetarian. They eat meat, chicken, dryfish, eggs, white ants, termites and insects. Eating pork and beef are a taboo for them. The Bhumij people of either sex are addicted to drinks, like handia (rice beer) and mahuli (country liquor), especially during festive and ritual occasions.

The diet survey in Desia Kandha villages shows that most of the crops grown in shifting cultivation and low land, all the games killed in and edible roots and tubers, fruit and flowers collected from the surrounding forest as well as fish caught in the nearby stream are consumed by them. For them alcoholic beverage is also a source of nutrition. They depend on a rice or rice gruel diet. Wild mango, jackfruits, amala, kendu etc. are taken. Egg is used more as ritual purpose rather than food. Sacrificed Buffalo meat is taken. They use stream and river water for many daily purposes. During summer they hallow out cisterns in the beds of the stream or corner of the paddy Field to get water. Brick and cement plastered wells and tube wells are also found in their village. Monkeys, elephants, snakes and reptiles are never eaten by Kandhas. Pork and chicken are not eaten by females. Men take food only in special occasion. There are little taboos during pregnancy. Anything available may be taken during pregnancy unless diagnosis of ill health causes a priest to forbid an items being displeasing to one of the deities. Pumpkins and certain roots are forbidden to eat. Lactating women do not take greens or tomatoes as this cause diarrhea of their babies. Molasses or sweet food and meat of wild animals is denied to nursing mothers.

The main food items of Gadaba are rice and millets. Mandiapeja (ragi gruel) is their staple food. They eat boiled rice with pulses and mango and tamarind chutney. Ragi, suan, arhar, biri, mung, maize, sorisa (mustard), alasi (nizer) and different vegetables. They do not like to take milk. They are fond of fish. They take brinjals, pumpkins, radish, pea, bean, cabbage, curley flower, tomato, potato and fruits like mango. Jackfruit, banana, soft bamboo shoots and naturally

grown plants and mushrooms. During festive occasions they take meat, chicken, fish, egg, etc. Liquor drink is a pleasant habit of Gadaba and for them drinking wine are both for pleasure and ritual purpose. Salap, landa (millet – beer), pendam (rice-beer) are most forceful intoxicants for the Gadaba people. They drink mahua and gur sprit. During ritual their principal menu consists of rice and buffalo meat curry. They smoke powder of dry tobacco leaf rolled in dry sal leaf and dhuanpatra

The Staple Food of Gonds is rice and two millets known as Kodo and Kutki. They take watered rice, mix-vegetables curry, dal, pickles and at time fish or dry fish. During festive occasion they take chicken or mutton curry along with rice. The clan members are restrictd from consuming the meat of their totem. Vegetables are usually grown in kitchen gardens or collected from forests. The daily food of Gond consists of daily catch of small animals, the collected yams and roots, wild fruits and vegetables. They eat minor millets, honey, roots and animal flesh. They drink liquor made out of wild flowers and fruits, like mango, sitafala, jamun, berries. Eating everything raw and rotten, clean and unclean. Squirrels and jackles, antelope and sambar, crow, kites and vulture, lizards, frogs, beetles, buffalos, calves, rats, mice. Gonds grow tobacco for smoking and make liquor fromMahua tree. They take rice beer, ragi and mahua liquor. The Koya food comprises of rice, gruel, ragi, maize, mandia, suan, roots and tubres, oil seeds, pulses, like bean, mung and kandul. Cooked rice is not taken always. Gruel is made of rice and pulses, like bean, mung, kandul mixed together and eaten in the morning and cooked rice is eaten in the night. Ragi is used for making beer and gruel. Minor millets, maize, and dried mahul flowers are substituted for the morning gruel of rice. They take fruits like kendu, mango, jackfruit,kusum, jamu, etc. Non-veg food arepigs, goats, fowls, beef, pork, fish, carbs, snails, tortoise and wild animals, except tigers and beers. Mohua flower is used both as food and intoxicant. Dry mahua flower and kendu are stored and eaten during rains. They consider the alcoholic beverage as a necessity. The most commonly used beverage is landa, or rice beer. It is prepared from the fermented rice and is drunk by men, women and children. Mahua liquor is used in a restricted manner. Sago palm juice and toddy-palm juice are also a favourite drink for the Koyas.

Rice is the staple food of Kisan. Rice with dishes like green leaves and vegetables are taken twice or thrice a day. Rice is supplemented by millet gruel. Edible roots and tubres, fruits and flowers are collected from the forest and taken which supplement their food. They prefer

watered rice with salt and chilies and greens. They take special non-veg food items, like goat, pig and fowl meat during festive and ritual occasion. Rice beer and mahua liquor are their most favourite drinks. Tobacco smoking and chewing and use of tobacco paste are their intoxicants.

The staple food of Oraon is rice which is supplemented by millet gruel. They preferred watered rice. They also take pulses and vegetables and non-veg. food, like goat, pig and fowl meat. Traditionally they do not milk the cows or take milk and milk products, but now doing so. They brew and take rice beer. They purchase and drink mahua liquor. Tobacco smoking and chewing is their traditional intoxicant. They also smoke country made bidi cigarettes. At present women chew gurakhu (tobacco paste).

Boiled rice is their staple food of the Mundas. At times instead of rice, they consume wheat, maize or *marua*. They are non-vegetarians. Fowls and goats are reared for food purpose. But they normally do not eat pork or beef. Among the pulses, *biri*, *kandul*, *moong* etc. are habitually eaten. They also include various types of edible jungle roots, fruits, tubers, mushrooms etc in their daily food chart. Among the vegetables, they eat onions, brinjals, tomatoes, pumpkins, gourds, lady's fingers, beans etc. The corolla of the flowers like *mahua* is also consumed as food. They eat three times in a day. They cook food in *soris* (mustard) or *surguja* (Niger) oil and eat salt with food. For condiments *haldi* (turmeric) and chillis are commonly used. The favourite drink of the Mundas is rice bear or *ili* and Tari. Each family brews its own *ili*. Some Mundas use powdered tobacco rolled up in *saal* leaves in the form of cigarettes while some others use tobacco with lime. The Munda men drink almost regularly, women also drink but occasionally. Munda tribes also prefer having tari and handia wine on special occasions.

Rice is the staple food of Santal. They are fond of taking watered rice with curry, like green leaf and vegetables such as brinjal, potato, sweet potato, papaya, tomato, ladies finger, gourd, pumpkin, etc. Their rice diet is supplemented by cereals like, ragi, suan, gulchi, kngu, maize and pulses, like black grams. They like to take non-veg food, such as curries of fish and dry fish, meat, chicken, carb etc. During festive occasions they take rice cakes along with mutton and chicken curry. Their food is also supplemented by the forest foods, like honey, yams, fruits (mango), flowers (mahul), tubers, green leaves. They drink various types of beer and liquor such as mahua liquor, rice beer. Both males and females love to drink handia, rice beer. They also like

the drink of date plam juice. The Santal males like to chew tobacco. They roll some tobacco in a piece of dried sal leaf and smoke it. They are also fond of smoking the bidi and cigarettes.

The food intake of the above selected tribes as categorized by them through the Field investigation would be of the following order as detailed in the Table 4.2.1: Food Habits of the STs and its corresponding Figure No. 2.2.1. Most of the tribal respondents (97%) are of the opinion that they are non-vegetarian and only 3% are pure vegetarian. While 65% of the respondents prefer food with alcohol and 35% take food without alcohol. Majority of them 52 % like to take boiled food and the remaining are satisfied with fried food. The table No 4.2.1 given below clearly indicates that out of 320 respondents, all most all people (97%) consume non-veg food. Of the total respondents, 27.27% take whatever food is available. Hence the present study shows that the tribals by and large are non-vegetarian in food habit and alcoholic.

Table 4.2.1: Food Habits of the STs (N = 320)

Sl. no	Name of the PTGS/STs	District	Magnitude (in %)					
			Non-Vegetarian	Vegetarian	Food with alcohol	Food without alcohol	Boiled	Fried
1	Bonda	Malkangiri	95	5	55	45	66	34
2	Chuktia Bhunjia	Nuapada	93	7	65	35	47	53
3	Hill-Kharia/ Kharia	Mayurbhanj Sundergarh	99	1	59	41	53	47
4	Junag	Keonjhar	97	3	68	32	41	59
5	Paudi Bhuyan	Anugul	91	9	66	34	44	56
6	Langia Saora	Gajapati	98	2	59	41	59	41
7	Bhumij	Keonjhar Baleswar	98	2	65	35	54	46
8	Dharua	Koraput	96	4	69	31	52	48
9	Desia Kandha	Kandhamal	98	2	71	29	49	51
10	Gadaba	Koraput	92	8	62	38	41	59
11	Gond	Nabarangpur , Sundergarh and Anugul	94	6	67	33	55	45
12	Kisan	Sambalpur	92	8	71	29	44	56
13	Koya	Malkangir	95	5	62	38	53	47

14	Oraon	Sundergarh	91	9	63	37	48	52
15	Munda	Sundergarh	94	6	66	34	48	52
16	Santal	Keonjhar	96	4	62	38	52	48
Overall			97	3	65	35	52	48

Source: Field Survey, 2012

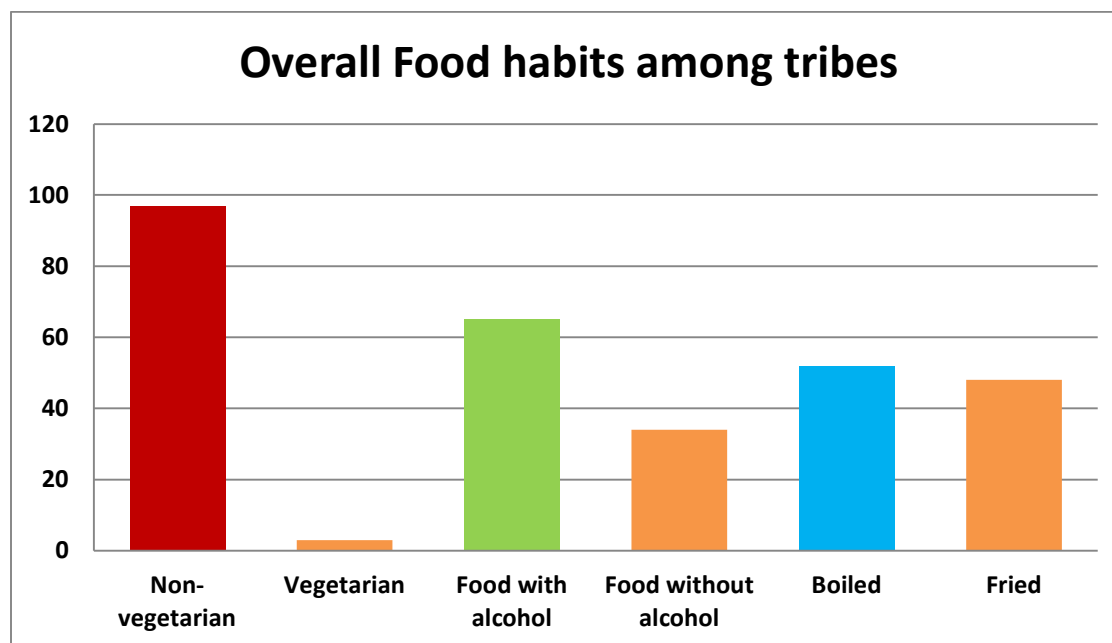


Figure No. 4.2.1.1

Consumption of intoxicant is one of the main habits of tribal. The study reveals that all respondents, except the children, are in the habit of taking handia and/or taddy/salapjuice. While the STs of the North Odisha region are taking handia and taddy, their counterpart STs in South part of Odisha are taker of salap juice/taddy. Further, it was found that 84.34 % ST peoples are addicted to alcoholic and 64.43%ST people developed the habit of smoking and chewing tobacco and only 11.74% people refrain from taking any intoxicant. Table 4.2.nad the corresponding Figure No. 2.2.1 provide the magnitude of intoxicants (drinking and smoking) consumption by the STs/PTGs covered by the study.

Table 4.2.2: Consumption of Intoxicants (Drinking and Smoking): N = 320

Sl. no	Name of the PTGS/STs	District	Magnitude of consumption of Intoxicants							
			Taking Handia/ Taddy/ Salap Juice		Taking Alcohol		Smoking and Chewing Tobacco		No Consumption of Intoxicants	
			No.	%	No.	%	No.	%	No.	%
1	Bonda	Malkangiri	259	81	259	81	211	66	42	13
2	Chuktia Bhunja	Nuapada,	266	83	266	83	195	61	51	16
3	Hill-Khadia/ Khadia	Mayurbhanj, Sundergarh	266	83	266	83	198	62	48	15
4	Junag	Keonjhar	278	87	278	87	192	60	3	10
5	Lanjia Saoura	Gajapati	266	83	266	83	202	63	45	14
6	Paudi Bhuyan	Anugul	275	86	275	86	211	66	26	8
7	Desia Kandha	Kandhamal	269	84	269	84	198	62	4	13
8	Bhumij	Keonjhar Baleswar	259	81	259	81	195	61	18	58
9	Dharua	Koraput	285	89	285	89	205	64	54	17
10	Gadaba	Koraput	278	87	278	87	205	64	29	9
11	Gond	Nabarangpur, Sundergarh, Anugul	282	88	282	88	218	68	13	4
12	Kisan	Sambalpur	278	87	278	87	214	67	51	16
13	Koya	Malkangir	269	84	269	84	221	69	54	17
14	Munda	Sundergarh, Anugul, Keonjhar	259	81	259	81	221	69	0	0
15	Oraon	Sundergarh	275	86	275	86	218	68	51	16
16	Santal	Keonjhar	259	81	259	81	195	61	18	58
Over all				84.34		84.34		64.43		11.75

Source: Field Survey, 2012

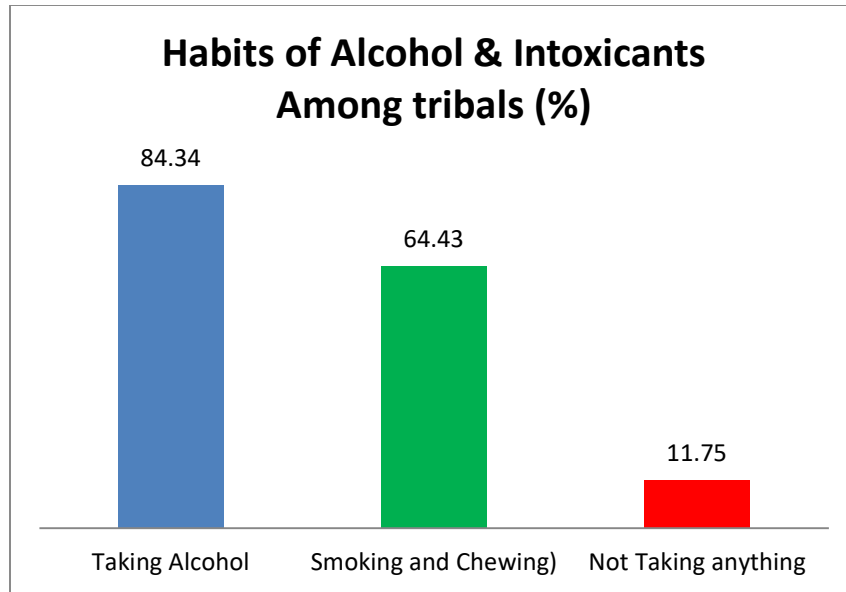


Fig 4.2.2.1: Intoxicant/ habit of tobacco among the tribal in the selected tribes

Further the present study reveals believe of the patients that disease is caused by insanity or excess consumption of alcohol. Nearly 65.23% of populations are of the belief that this is the main causation of disease in their locality. Still a sizable section of the patients (35%) consider that taking of handia and liquor is a culturally patterned food and drink habit of their societies and thus their consumption does not affect their health conditions. The following Table 4.2.3 captures the response of as many as 320 patients who had received the treatments by the traditional medicine men as well as the magic practitioners.

Table 4.2.3: Disease caused by insanity or excess consumption of alcohol:

Sl. No	Insanity or excess alcoholic habit is cause of disease.	Magnitude	
		No of Respondents	Percentage
1	Yes	208	65.23%
2	No	112	34.77%
3	Total	320	100.00%

4.3 Hygienic practices

Humans everywhere as per their cultural knowledge have developed the indigenous methods of preventing, diagnosing, alleviating and curing of various diseases. In this context environmental sanitation and personal hygiene have emerged as important considerations. While

growing up humans progressively realize the dialectics between health and sickness, which operationally is dependent on certain variables like social circumstances, cultural habits and physical environment. The State of public health can be measured not merely from the incidence of disease, but from the conditions of life of people, which encompasses the physical environment, sanitary habits, food patterns and practice of personal hygiene.

The common cause of illness is poor sanitation. Women urinate in standing position at any place except their living rooms and also use the same clay for washing the utensils. After urination, they do not take bath. The second reason is that people do not have toilets for defecation and they use open field area. This field is also used for several purposes. Children play there, people collect tentuli (tamarind) which falls in the field from the tree and it is also used as a passage. Since people do not use foot wears, the germs generally enter through the feet. For cooking, people use river water which is very dirty.

Hygienic practices of the studied tribes may be viewed through the topography and settlement pattern of their villages. The topography and settlement pattern of the study villages present a picture of their environments and surroundings. Topography of the villages is mostly in hill slopes, tops, undulating and forest plan areas. Houses in most of the villages are irregular in structure (in cases of Koya, Oraons, Paudi Bhuyan, Khadia/Hill Khadia and Bhumij), Isolated (in cases of Bonda, Chuktia Bhunjia, Dharua and Junag), lineal (in cases of Desia Kandha and Gadaba) and dispersed (in cases of Lanjia Soaora, Gond, Kisan, Desia Kandha and Santal).

Table 4.3.1: Topography and settlement pattern of the study villages

Sl. No.	Name of Tribes	District	Topography	Settlement Pattern
1	Koya	Malkangir	Plain Area	Irregular in structure
2	Bonda	Malkangiri	Hill slope	Isolated
3	Lanjia Soaora	Gajapati	Plain Area	Dispersed
4	Gadaba	Koraput	Undulating plain	Lineal
5	Gond	Nabarangpur, Sundergarh, Anugul	Hill Top	Dispersed
6	Chuktia Bhunjia	Nuapada,	Hill slope	Isolated
7	Oraons	Sundergarh	Plain Area	Irregular in structure
8	Kisan	Sambalpur	Plain Area	Dispersed
9	Dharua	Koraput	Hill slope	Isolated
10	Paudi Bhuyan	Anugul	Plain Area	Irregular in structure
11	Khadia	Mayurbhanj, Sundergarh	Plain Area	Irregular in structure

12	Munda	Sundergarh, Anugul,Keonjhar	Plain Area	Dispersed
13	Desia Kandha	Mayurbhanj, Baleswar	Forest Plain area	Lineal
14	Junag	Phulbani	Forest Plain area	Isolated
15	Santal	Keonjhar	Plain Area	Dispersed
16	Bhumij	Keonjhar, Baleswar	Plain Area	Irregular in structure

(Source: Field Survey, 2012)

Traditional system of treatments, lack of awareness, unhygienic practices, inadequate infrastructure, lack of proper communication facilities, poor economic condition are some of the factors contributing to the miserable health condition of the STs covered by the study. The sanitary and hygienic practices as reported by the members of the individual tribes, both STs and PTGs, covered under the study are stated below.

Table 4.3.2: Sanitation Facilities and Hygienic practices at the study villages of the PTGs/STs

Sl. No.	Facilities/Practices	Yes		No		Total	
		Number	%	Number	%	Number	%
1	Window Facility	35	10.94	285	89.06	320	100
2	Toilet Facility	32	10.00	298	93.13	320	100
3	Bath room Facility	0	0.00	320	100.00	320	100
4	Separate Animal/bird Shed	28	8.75	302	94.38	320	100
5	Drainage system	87	27.19	243	75.94	320	100

The Hygienic practices and sanitary habits of the tribal communities as observed in each of the study villages through transact walk and FGD, which corroborated with the findings of previous studies and the statements detailed in the Table 4.3.2, is discussed as follows.

The Bondas do not keep their habitation neat and clean. The household refuses are collected and thrown in the backyard. Heaps of household refuses added with the excreta of pigs, goats and fowls. This creates breeding grounds for flies and mosquitoes. During the rainy season the streets and the surroundings of the houses become muddy and generate foul smell. The Bonda houses are not only poor in quality but also unhygienic. In the multipurpose rooms they store their belongings, cook food and sleep. Shelters for their domestic animals and birds are

found close to their living houses. The ventilation-less houses make the rooms congested, suffocating and dark. They are unaware about their personal hygiene. They do not take bath regularly. Their women go without bath days together. They brush their teeth and wash their mouth daily, but not, properly. After defecation, they manage with tender leaves or rounded small stones, if no water is available. The Bonda males, particularly the unmarried boys take much care of their hair. They keep hair long and dip it and clean it with soap or fruits of a forest plant called Sawa. They cut the beard and moustache twice or thrice a month. Both males and females use scanty clothes; occasionally wash them with ashes in boiling water. Use of soap for cleaning the body or the clothes is not generally seen among them.

The leaves which fall from the trees are found in and around the Chuktia Bhunjia village. The cow dung pits over flow during rainy season. The garbage is generally thrown outside the households. All these make the surroundings environment insanitary. This is more so in the rainy season than in other seasons. Both men and women take bath regularly. The Chuktia Bhunjia houses are kept very neat and clean by the women folk. The floor of the house is plastered daily with cow dung mixed with red earth and the surroundings of the houses are swept clean.

The Juang villages are located in the hill slopes. Hill streams are their main sources of drinking water. The stream water possess through several habitation gets contaminated due to the indiscriminate use by the people. The Juangs pass their excreta on the bank of the stream, wash their clothes, and bath the cattle in the same stream, which cause considerable pollution to the drinking water. They consume the contaminated stream water and suffer from stomach diseases. Their unhygienic maintenance like throwing cow dung and house hold refuges in the backyard make it breeding ground for innumerable varieties of insects, like mosquitoes and flies causing fatal diseases like malaria and gastroenteritis. Due to such pollution and lack of personal hygiene, the Juangs generally suffer from different types of diseases like malaria, warm infection, fever, gastroenteritis and skin diseases like yaws and eczema.

The Hill-Kharia villages are located in the natural environment of Similipal hills and forest. In the village their houses are found scattered in hill top/slope/foot adjacent to water source, like hill streams amidst fruit trees. The houses are small with multipurpose rooms and have no windows and not provided with any ventilation. The single room is divided by partition wall, the small part is kitchen and the larger one if bed room. The goat pen, pig stay, and cattle shed are found separately. Poultry birds are kept in one corner of the house during nights

The Pauri Bhuyan villages are located on hill slopes or hill tops. The villages are full of mango and jackfruit trees. During rains the village becomes swampy with thick forest growth in and around. The factors which attribute to poor health of Pauri Bhuyans are the lack of environmental sanitation, poor living condition including improper ventilation. As regards the personal cleanliness all adults take bath regularly. This may be one of the reasons for the lower incidence of skin diseases among the Pauri Bhuyans. They brush their teeth with saltwigs. This explains why their teeth are in healthy condition and the incidence of dental diseases is not significant among the Pauri Bhuyans of the study village. The cow and buffalo sheds are found close to the living house. Goats and chicken are kept in one side of the sleeping rooms during the nights.

The Saoras/Lanjia Saoras do not take care of the environmental sanitation. Nor do they keep their villages clean. Cow-dung and other refuse like household dirt and animal excreta, etc. are thrown in the street here and there. These heaps of house refuse and garbage are decomposed inside the village surroundings. These provide a breeding ground for mosquitoes and flies. Besides, during the rainy season the streets of the village seen muddy as there is no drainage system. The windowless house lack proper ventilation. Their room remains smoky, damp and generally dark throughout the day. These factors are responsible for respiratory diseases, eye troubles and low resistance of the body. The Saoras believe that the ghosts and the spirits remain out of sight and the darkness can safeguard evil eye. Thus they like dark interiors, which keep them relatively free from the fear of the ghosts and spirits. The Saoras do not take bath daily in the winter. They rarely use soap to clean their body. At times they use a type of earth/mud or a piece of bark of some plants. They brush their teeth with twigs of sal or karanja. The adult persons use to wash their hands with earth after defecation and with water before and after taking their meals. Their children are hardly seen washing their hands before eating.

The Bhumij villages are located in the undulating terrains at the foot hills and close to the streams. The houses are katcha and floors and walls are made of mud and the roof is thatched with wild grass or straw. The house is windowless and there is only one door. The grains are stored in one corner of the sleeping room. A small kitchen is found separately. Before occupying the house they offer puja to Tahakurani to protect them from evil spirits.

The Desia Kandha village sanitary standard is low. Houses are low-pitched roof. Cooking is done in the inner part of the house. Hen and cocks and goats pens are kept close to the house.

Garbage is swept to the back of the house and end of the street and there lie in heaps. Pigs droppings and night soil of the children are scattered in the street. Pigs roll in the damp areas and make the surrounding filthy. People defecate in the field, jungle and hillsides, but children here and there along the village street. This cause spread of diarrhea through flies, also hookworm infection. Waterborne diseases are frequent due to inadequate water source for drinking, bathing and washing. Men and animals use the same source of water, stagnant pool, stream and ponds for all these work. Their houses are swept twice a day. Fresh cow dung is used for plastering on floor and walls. Cow dung and water is sprinkled outside to lay the dust and make the approach clean. Women wash their hands before the cooking. Women and men wash hand and face and mouth on rising and before taking food. They take daily bath. Teeth are brushed with bristles prepared out of sticks of sal, neem and karanj trees. Clothes are washed frequently. Women help each other to pick out head lice. During women's period they smear with turmeric and oil paste and then wash and take bath.

Lack of awareness, unhygienic practices and sense of personal hygiene are some of the factors contributing to the poor health condition of the Gadabas. The Gadaba houses are windowless. Nor it has toilet and latrine facilities. The kitchen is inside the house. There are separate cowsheds. Most Gadabas of sample study do not take bath on daily basis. Their nails are uncut, filled with dirt. Washing of clothes with soap is occasional. Lesser occasional is the bath with soap. The sense of public hygiene is very poor in the tribe. Dung heaps are found all through the village lanes. During the rainy season the village lanes have ankle deep mud. The idea of keeping the public places clean such as the Sadar, village well and tube-well, etc. seldom occurs in Gadaba villages.

The Gond villages are extended mostly over the hill tracts and found near hill and forests. The houses are arranged in linear pattern. Now they have downgraded the linear type of houses with arrangements like kitchen garden, cattleshed, and front court yard. The village environment, due to influence of neighboring Hindus, are found neat and clean. The Puca houses, thatched with tiles have ventilation and compound walls. They have separate place for storing grains in the house. The cattle shed; cock and goats are kept separately.

The sanitary condition of Koya village gives a very dirty picture. All over the Koya village the sight of poor sanitary and un-cleanliness conditions is common. The dung of pigs,

		field	standing	there	cloth	bathing	water
Men	180	100%	100%	81%	91%	37%	55%
Women	140	89%	23%	89%	73%	44%	55%
All	320	94.5%	61%	85%	82%	40.5%	55%

Source: Field Survey, 2012-13

During the study the opinion about hygienic practices of 320 respondents including 180 men and 140 women were recorded. About 96 % ST people confessed their defecation in the open Field. 61 % people are in the habit of urinating on standing position. While 85% people developed the habit of spitting here and there, 82% people used soiled clothes, 55% people use to take dirty water and 41% people are irregular in taking bathing. This presents a dirty picture of the poor health and sanitary conditions among the STs in the study areas.

Analysis of the village scenario of the above Tribes shows that the Tribal people inhabiting forest and hilly areas mostly depend on small perennial hill streams for their water requirement. As safe drinking water is not available in most of their villages, the State Government have installed tube-wells to solve the problem. The tube-wells do not yield adequate water during summer months, and about fifty percent of them remain dysfunctional always, may be due to improper handling. They are some dug-wells in the their villages, which have been sunk by the State Government agencies to ease the water scarcity problem. The surroundings of the tube-wells as well as wells are swampy, dirty and utterly unhygienic as the used water stagnates and becomes sullage and people throw all sorts of rubbish around them. People do take both sometimes, housewives clean utensils and dirty linen and anal washing of children is done after defecation around the tube-wells and wells.

The streams are used for bathing of humans and livestock Dirty clothes are cleaned in the stream water directly. Buffaloes lie down in the stream water most often. Women wash their menstrual linen directly in the stream water. Men and women defecate on either side of the stream and wash the rectum directly in the stream water always carried decomposed leaves and other vegetative matter, which provide appropriate milieu for the breeding of various kinds of parasites. Polluted water spreads water-borne diseases. The tribals frequently suffer from intestinal diseases, like diarrhea, dysentery and dyspepsia and polluted water is said to be the cause of these.

Adult tribals, both male and female, usually defecate near the stream and in the vacant field surrounding the village habitation. Children below 7 to 10 years of age defecate within the village settlement, and roaming pigs usually eat of the excreta. The excreta of babies are disposed of in the garbage heap located at the backyard of almost every house. The accumulated garbage decomposes, emits foul smell and functions as a favourable receptacle for breeding of varieties parasites.

The environment of tribal villages remains polluted and dirty for a variety of reasons. The village street is littered with animal dung, household refuse, excreta of children and swamps of human and bovine urine. There is no arrangement for the disposal of household sullage water. The water used for such domestic purposes as washing of utensil, cleaning of food materials. Occasional washing of clothes and bathing of children, sick and old persons is released to a pit located outside the house, where it is allowed to soak into the ground or remain stagnant and become a favourable cradle for various types of parasites.

4.4 Drinking water:

Tribal peoples inhabiting in forest and hilly areas mostly depend on cisterns and streams for drinking water. As drinking water is not available in Koya and Saora territory, the state government has installed tube wells to solve the problem. The problem of drinking water in tribal areas is acute on account of the paucity of drinking water. Further, some villages suffer from contaminated water supply. The hill streams, ponds or ditches serve many purposes. They provide water for drinking, cooking food, cleaning utensils. These are places where people take bath, wash their body after defecation, and clean cattle. The hill streams, ponds or ditches which are highly polluted, are the only source of drinking water, and are potent source of water borne diseases. In some places especially near the mining areas, the water of hill streams and ponds is not only polluted, but also contains graphite, causing irritation in the gastro-intestinal tract, resulting in gastric discomforts, abdominal pains, hyper-acidity and constipation. The water contents have not yet been analyzed and the effect of graphite on the human body needs thorough investigations.

The Bondas use the running water of the hill streams and the rivers for drinking and also for cooking, bathing and washing after defecation. If required, cattle are also scrubbed in such streams and rivers. Cremation grounds are located on the banks of these water sources. After

cremations the ashes of the corpses are thrown into water of these sources. This polluted water causes several kinds of stomach trouble. The hill streams are the main sources of drinking water in the Juang villages. The stream water is pure at source. But the stream water possesses through several habitations and gets contaminated due to the indiscriminate use by the people. The Juangs pass their excreta on the bank of the stream, wash their clothes, and bath the cattle in the same stream which polluted the source of drinking water. They generally suffer from stomach diseases after consuming the contaminated stream water.

At village the Paudi Bhuyan people drink water from ponds and hill streams. The water sources are used for more than one purpose. Water of a particular place is used for multifarious purpose such as washing clothes, bathing, washing their body after defecation, scrubbing their cattle, cleaning their utensils and also for cooking food and drinking. This explains why water-borne diseases are very common among them. The Bhumij people like to use and drink the stream water even if there is tube well and well at the village. The Kharia villages have tube wells, but the Kharia people prefer to drink water from streams due to odd smell of the tube well water. The Koya women fetch drinking water from the village stream or tank. During acute summer they dig the beds of tank or dry stream to fetch water. The Koya do not prefer to drink tube well and well water.

All most all ST people covered under the study drink water from ponds and hill streams. Besides, they continue to use the village water source for different purpose. The study has estimated the source of drinking water used by them and their family members as follows. Among the 320 respondents as many as 45% ST people and their family members depend on protected sources, like Tube well (24.00 %), open well (15.00%), tap water (4.21%) and majority (55.00 %) continue to use drinking water from unprotected sources , like Cisterns and River streams (43.00%) and Ponds/Tanks (12.00%). Further the extent of daily water consumption per member comes to less than 5 glasses of water in respect of 85% respondents. The water intake quantity of the remaining 15% is estimated at 5 to 9 glasses per day per member.

4.2.4: Drinking water sources and use

Total no. of	Use of drinking water
--------------	-----------------------

Respondents	Sources					Daily Consumption of water		
	Tube well	Open well	Cistern / River stream	Ponds/Tanks	Tap water	< 5 Glasses	>5 – 9 Glasses	> 10 Glasses
320 (100.00%)	65 (24.00 %)	48 (15.00 %)	150 (43.00 %)	35 (12.00 %)	7 (4.21 %)	280 (85.00 %)	40 (15.00 %)	0 (00.00 %)

Sl .n o	Name of the Tribes	District	Sources of drinking water (%)					
			Pipe water	Well (Protected) /covered	Unprotected well	Tube well	Ponds/Tanks	Sprink/River/Nallah
1	Koya	Malkangir	2	2	10	26	11	49
2	Bondo	Malkangiri	3	1	11	27	12	46
3	Langia Saoura	Gajapati	2	2	10	24	13	49
4	Gadaba	Koraput	4	2	11	26	12	45
5	Gond	Nabarangpur, Sundergarh, Anugul	3	3	16	26	13	39
6	Chute Bhunjia	Nuapada,	5	2	17	27	12	37
7	Oraons	Sundergarh	2	1	10	24	11	52
8	Kissan	Sambalpur	6	2	11	26	11	44
9	Dharua	Koraput	7	3	16	27	12	35
10	Paudi Bhuiya	Anugul	4	1	17	23	13	42
11	Khadia	Mayurbhanj, Sundergarh	6	4	12	21	14	43
12	Munda	Sundergarh, Anugul, Keonjhar	7	5	10	24	15	39
13	Desia Kond	Mayurbhanj, Baleswar	3	1	11	25	11	49
14	Junag	Phulbani	5	2	16	21	12	44
15	Santal	Keonjhar	4	3	17	24	13	39
16	Bhumij	Keonjhar, Baleswar	6	5	12	26	15	36
Over all			4.31	2.44	12.94	24.81	12.50	43.00

Non availability of tap water is conspicuous in the tribal habitats. As a result, they are forced to use the river/stream water.

CHAPTER-V

Common Diseases, Disorders & Deficiencies, the Associated Belief System to Find Out Causes and Remedies

5.0 More than 50% of the tribal population in Odisha still depends on the traditional healing systems in some form or the other. They continue to rely on the indigenous material medicine for human and animal treatment, due to cultural traditions, easy access and low cost and even at time free. When we combine this economic factor with tested efficacy, the tribal herbal medicines stand out as the better choice for them. Elements of this aspect of traditional wisdom in the matter of identification of cause of diseases, and their cure can be gathered through analytical studies of the ethnic societies which are less influenced by the modern civilization. Here this chapter tries to rediscover the belief and practice related to tribal morbidity pattern and traditional healing system- causes and remedies.

Keeping the requirements of this chapter in view the following discussions estimate the morbidity pattern of selected 16 ST communities including the PTGs of Odisha with help of the findings of the previous studies as well as the findings of field observations of the present study. This discussions not only limited to the extent of the diseases occurred among the STs, but also their traditional believe system about the cause of illness and their effects on the tribal health.

5.1 Morbidity Pattern of the STs of Odisha (Findings of Previous studies):

5.1.1 Genetics diseases, disorders and deficiencies:

Genetic disorders are gaining prominence and have profound health implications in morbidity status of tribals in Orissa (Balgir 2004b, 2004c, 2005b). Sickle cell anemia and glucose-6-phosphate dehydrogenase (G-6-PD) enzyme deficiency are the two important genetically determined disorders, which play an important role in human health and disease. Out of the 62 scheduled tribes in the state of Orissa, 18 major scheduled tribes each comprising more than 1 lakh individuals as per 1991 census were studied. These major scheduled tribes included Bathudi, Bhumij, Kolha, Lodha and Santal from Mayurbhanj district, Bhuyan, Kharia, Kisan, Munda and Oraon from Sundargarh district, Bhatra from Nawarangpur district, Gond from Kalahandi district, Kondh from Kandhamal district, Paraja from Koraput district, Bondo and Didayi from Malkangiri, Juang from Keonjhar and Saora from Ganjam and Gajapati districts in Orissa. The frequency of blood group B showed preponderance over blood group A among Bathudi, Bhuyan, Kissan, Kolha, Kondh, Munda, Oraon, Paraja, Santal and Saora tribes. In Bhumij, Gond, Kharia and Lodha tribes the opposite was true, thereby showing their ethnic diversity. The frequency of Rhesus-negative phenotype was very low (range 0% to 2.1%) among all the tribes of Orissa, and among Bhumij, Kharia, Kissan, Kolha, Lodha, Munda, Paraja, Santal and Saora tribes it was completely lacking (Balgir et al, 2004). The distribution of sickle cell disorders varied from zero to 22.4% among 18 major tribes studied here from Orissa. High frequency of the disorders was observed among the Gond (22.4%), Bhatra (18.1%), Paraja (14.8%), Kharia (7.4%) and Saora (7.3%) tribes. While Bhuyan, Kissan, Kolha, Lodha and Oraon tribes lacked them, the distribution of beta-thalassemia showed wide range of variation, i.e. from zero to 8.5% among them, high incidence of the trait was noted among Paraja (8.5%), Santal (8.0%), Lodha (6.7%), Bhatra (6.6%), Kondh (6.3%) and Saora (6.2%). The low frequency of sickle cell gene was found in Bondo (0.6%), Didayi (3.2%), Juang (1.3%) and in Kutia Kondh (1.5%) tribe of Orissa (Balgir, 2004d; Balgir et al 2004; Balgir, 2005b). The distribution of β -thalassemia trait showed wide range of variations, i.e. from 0.00 percent to 8.5 percent among the major tribes of Orissa. High incidence of β -thalassemia trait was noted among Paraja (8.5%), Santal (8.0%), Lodha (6.7%), Bhatra (6.6%), Kondh (6.3%), Saora (6.2%), and so on in the decreasing order. The prevalence of beta-thalassemia was low in Bondo (0.5%), Didayi (3%), Juang (2.6%) and Kutia Kondh (2.3%) tribe of Odisha (Balgir et al, 2004, Balgir, 2005b). The distribution of G-6-PD deficiency among 18 major scheduled tribes of Odisha was studied and the enzyme deficiency was quite high, varying from 5.1 to 15.9 % (Balgir 2004d, Balgir et al

2004). The frequency of deficiency was high in males (range 4.3-17.4 %) than in females (range 0.0 -13.6 %). Both deficient female heterozygotes and homozygotes were encountered. High incidence of G-6-PD deficiency was observed among Munda (15.9 %), Paraja (15.9 %), Kharia (14.2 %), Bhuyan (12.9%), Kolha (9.8 %), Bhatudi (9.5 %), Bhumij (9.5 %), Santal (9.0 %) and Oraon (8.2 %) tribes. The frequency of G-6-PD deficiency was recorded to be low in Bondo (0.4 %), Didayi (1.6 %), Juang(7.3 %) and KutiaKondh (4.8 %) tribes (Balgir et al, 2004, Balgir, 2005c).

Recently, the G-6-PD enzyme deficiency among the tribes (Bathudi, Bhuyan, Munda and Santal tribes) of India has been identified as a new variant, called 'G-6-PD Odisha' which had only 10-20% of the normal enzyme activity and normal electrophoretic mobility, but had five-fold higher Michael's constant for the substrates which actually translates roughly into five-fold lower activity at limiting substrate concentrations and showed the increased thermo stability than normal enzyme (Kaeda et al., 1995). This means that the anti-malarial drugs like primaquine and many other compounds such asphenacetin, furadantin, certain sulphonamides and acetyl salicylic acid (aspirin), etc. Should be administered with caution among the tribal populations of India including STs of Odisha, which may cause hemolytic crisis and, sometimes may even be fatal. Hereditary hematological disorders such as hemoglobinopathy and thalassemia syndrome (Balgir and Sharma, 1988; Balgir, 1996a, 1996b) glucose6phosphatedehydrogenase enzyme deficiency (Balgir, 1989) and hemophilia, and color blindness (Balgir, 1999a), chromosomal aberrations, congenital malformations, inborn errors of metabolism, etc. are encountered among the tribal populations. The preventive and control strategies along with remedies for some of these hereditary disorders have also been highlighted elsewhere (Balgir, 1996c, 1999b, 2000b, 2004b).

5.1.2. Chronic and endemic diseases, disorders and deficiency:

Among the chronic and endemic diseases, like yaws, leprosy tuberculosis and malaria have been found to be quite prevalent in tribal areas. Incidence of leprosy has been reported in schedule tribes of Odisha. Incidence of malaria is wide spread in all most all tribal areas. Tribal who constitute 8% of total population constitute 25% of total malarias cases in the country. About 50% of the Falciparum cases reported in India come from tribal populations. Malaria is a major health problem in most of the tribal areas. Malaria control in tribal dominated areas in posing a difficult task due to technical and operational problems.

Leprosy is communicated through intimate and prolonged contact with the patient. The unhygienic conditions play a major role and disease is manifested in skin, mucous membrane and nerves and caused by mycobacterium leprae. Poor diet and nutrition enhances susceptibility of communication to infectious diseases. Besides, lack of personal and domestic hygiene, overcrowded living are also the causative factors responsible for this kind of disease. Currently, the leprosy prevalence rate in Odisha is 1.91 per 10,000 populations as against the national rate of 1.34 per 10,000 populations. Beside the other communicable diseases like diarrhea, measles, typhoid, and influenza are also reported among the tribal of Odisha

Lymphatic filariasis (LF) is one of the major tropical diseases associated with disfigurement of grossly swollen limbs and genitals. Globally around 40 million people almost in 80 countries where the disease is endemic have clinical LF, and another 80 million are infected with the parasite. More than 1000 million people live in the endemic areas and are at risk of becoming infected. Human infection with the parasite leads to damage in the lymphatic vessels that lead to a wide range of temporary or permanent disabilities. The state of Odishais highly endemic for filariasis. The LF can be eliminable. The Global Programme to Eliminate Lymphatic Filariasis (GPELF) recommends that all those who live in endemic communities be treated once in a year with a single dose of appropriate ant filarial drug like diethylcarbamazine (DEC). Though this drug has limited effect on adult filarial worm, it clears microfilaria from infected humans and deprives mosquitoes for opportunity to pick up infection from affected host to healthy individual.

As per the disease profile of filariasis in Odisha, a total of 43,646 persons were examined during the year 2004 and out of these, 797 were microfilaria positive and 3,050 had full-fledged disease, giving microfilaria rate of 1.82 and disease rate of 6.98 and endemicity rate of 8.81 in Odisha. Tribal people in coastal Odisha are equally vulnerable to this health problem.

Liver cirrhosis due to excessive drinking of country made alcohol, hypertension due to excessive salt intake, chronic respiratory diseases due to excessive smoking, oral cancer (due to regular betel nut chewing), malnutrition, nutritional deficiency disorders like iron deficiency

anemia, iodine deficiency (goitre), avitaminosis, etc. form a major chunk. Cardio-vascular diseases are very uncommon among the tribal of Odisha.

There are several other environmentally caused health hazards due to poor sanitation, poor disposable facilities for human excreta, animal waste, sewerage and silage, etc. associated with illiteracy, extreme exploitation by the local elites, etc. However, in some tribes the indigenous way of treatment for some common ailments using herbs and other forest flora or fauna products is much more advanced than the modern allopathic in some cases.

Skin problems like scabies is a major health problem amongst the primitive tribes because of overcrowding and unhygienic living conditions as also close contacts and lack of health awareness. In a study conducted by the RMRC, Bhubaneswar, 20.6% of Bondo, 6.9% of Didayi, 10.7% of Juanga and 15% of KutiaKondha tribes were affected with scabies (both infective and no infective), which is comparable with the findings in Bondo primitive tribe (7%) of Odisha.

5.1.3 Nutritional deficiencies and disorders:

Lack of proper health education, poverty, faulty feeding habits and irrational beliefs aggravate the health and nutritional status of these underprivileged people in India (Balgir, 2000a). According to National Nutrition Monitoring Bureau (NNMB) report (2000-01), the state of Odisha continues to have the 2nd highest position for under nutrition among the ten states of India. While comparing the aggregate figures for chronic energy deficiency (CED), i.e. Body Mass Index (BMI) less than 18.5 in adult men and women in ten states, the level of CED was higher in Odisha. The prevalence of CED in adult men in the state was 38.6% as compared to aggregate of 37.4%, whereas, the CED for adult women was 46% against 39.3% of aggregate. As malnutrition is known to lead susceptibility to infectious diseases to death, the mortality rate in PTGs may be attributed to malnutrition.

Micronutrient deficiency is closely linked with nutritional disorders and diarrhea. Deficiency of essential dietary components leads to malnutrition, protein calorie deficiency and

micronutrient deficiencies (like vit.A, iron and iodine deficiency). Vitamin A deficiency in the form of Bitot's spot, conjunctival xerosis and night blindness was observed in 8.9%, 25.9% and 11.4% among Bondo; 13.7%, 24.2% and 27.6% among Didayi; 14.9%, 17.9% and 7.4% among Juang; and 3.4%, 12.6% and 6.9% among Kondha tribes, respectively (GP Chhotray: Unpublished observation). However, other micronutrient deficiencies like iodine deficiency (goiter), vitamin B complex deficiency (in the form of angular stomatitis) were not encountered. Similarly a high percentage of vitamin A deficiency was observed in 24.4% among Birhor tribes and 53.3% among Sahariya tribes of Madhya Pradesh. Goitre was also observed in 3.4% of these tribes. In a study conducted by the RMRC, Bhubaneswar, 20.6% of Bondo, 6.9% of Didayi, 10.7% of Juang and 15% of Kutia Kondha tribes were affected with scabies (both infective and non-infective), which is comparable with the findings in Birhor PTG (7%) of Madhya Pradesh.

5.1.4. Others:

Beside the other communicable diseases like diarrhea, measles, typhoid, and influenza are also reported among the tribal of Odisha. Malaria is emerging as the major public health problem in all tribes of Odisha. During the year 2002-03 in Malkangiri, Kandhamal and Keonjhar districts of Odisha, the slide positivity rate (SPR) was recorded to be high in Bondo (14.2%), Didayi (14.4%), Juang (9.5%) and Kutia Kondh (10.5%) with the high Pf rate in Bondo (93.5%), Didayi (92.7%), Juang (91.2%) and in Kutia Kondh tribe (92.7%). The spleen rate in children between 2 to 9 years was also high in Bondo (25.8%), Didayi (35.1%), Juang (24.4%) and in Kutia Kondh (26.3%) tribal population in Odisha.

Diarrheal disorders: In tribal areas of Odisha, the diarrheal/dysentery diseases including cholera occur throughout the year attaining peak during the rainy season (from June to October). During the year 2002-03, Bondo (12.7%), Didayi (13.2%), Juang (12.6%) and KutiaKondh (10.4%) children (0-6 years) and Bondo (10.9%), Didayi (11.6%), Juang (6.9%) and KutiaKondh (10.2%) adult population had acute diarrhea

Intestinal Parasitism: Intestinal protozoan and helminthic infestations are the major public health problems and were observed in 44.6% Bondo, 44.9% Didayi, 31.9% Juanga and 41.1% Kondha primitive tribes of Odisha. Amongst helminthic infestation hookworm was most common (21% in Bondo, 18.7% in Didayi, 14% in Juanga and 18.2% in Kondha). Children

(aged 0–14 years) were more affected than the adults. A repeat stool examination after 4 months of anthelmintic and antiprotozoal treatment revealed significant reduction in the worm burden (from 38.9 to 18.9%).

5.2 Morbidity Pattern of the STs of Odisha (Study Findings):

Our investigation in the field reveals that out of 320 total number of sample respondents/patients, who received the traditional healing/treatment, the highest number, 69 patients (21.56%) suffered from jaundice followed by 44 (13.75%) patients from intestinal disorder, 34 (10.63%) patients from cold, 33 (10.31%) patients from malaria, 26 (8.31%) from diarrhea, 25 (7.81%) from measles, 22 (6.88%) each from allergy and skin diseases, 19 (5.94%) from typhoid, 15 (4.69%) from fever and the least 11(3.43%) patients from eye diseases. The table 5.2.1 explains the morbidity pattern indicates tribe-wise and area wise occurrence of diseases among the patients, who received the tribal traditional treatments.

Table 5.2.1: Morbidity Status among Patients/Respondents (N = 320)

Sl. No.	Name of diseases	Magnitude	
		Nos.	%
1	Jaundice	32	10.00
2	Intestinal Disorder	27	8.44
3	Cough & Cold	56	17.50
4	Diarrhea	54	16.88
5	Allergy	27	8.44
6	Skin Disease	27	8.44
7	Fever/Malaria	41	12.81
8	Others (Eye disease, Measles,Typhoid etc)	56	17.50
Total		320	100.00

Source: Field Survey, 2012-13.

5.2.2 Tribe wise and area wise Morbidity Status among Patients/Respondents (N = 320)

Sl. no	Name of the Tribes	District	Total Patients	Fever	Skin disease	Diarrhea	Allergy	Cough & cold	Others
1	Bonda	Malkangiri	26	1	3	5	5	5	7
2	Chuktia Bhunjia	Nuapada,	66	4		3	4	3	52
3	Hill-Kharia/ Kharia	Mayurbhanj Sundergarh	16	3	3	1	3	5	1
4	Junag	Keonjhora	26	5		3		7	11
5	Lanjia Saora	Gajapati	20	1		5	2	5	7
6	Paudi Bhuyan	Anugul	13	5	3	5			
7	Bhumij	Keonjhar Baleswar	12	1	2	5	2	2	
8	Desia Kandha	Kandhamal	20	2	2	2	2	5	7
9	Dharua	Koraput	12	2		5		5	
10	Gadaba	Koraput	12	5					7
11	Gond	Nabarangpur, Sundergarh Anugul	14	2	1	2	4	3	2
12	Kisan	Sambalpur	13	1	2	3	2	1	4
13	Koya	Malkangir	18	5		2		3	8
14	Munda	Sundergarh Anugul Keonjhar	19	1	6	5	1	3	3
15	Oraon	Sundergarh	15	2	3	3	1	4	2
16	Santal	Keonjhar	18	1	2	5	1	5	4
Total			320	41	27	54	27	56	115

Source: Field Survey, 2012-13

5.3 Associated belief system to find out causes and remedies:

Tribal People invariably believe in spirit and other supernatural beings as causes of disease and priority of treatment inclined mostly towards traditional healers. The study of Pramukh and Palkumar (2006) shows that the tribal groups namely, the Savaras, Bagatha, Konda Dora, Valmiki, Koya, Konda Reddi, etc. believe in the power of prayers and rituals that enables some herbs to act as medicines to heal diseases among them. They attribute diseases to certain deviant acts of self and others towards elders, nature and divine rules. Thus, their first priority is

to get spiritual cure in a traditional way. Our field observations among the tribes in 13 districts by and large corroborate the above findings. Examples of believe and taboos relating to health of individual tribes as gathered from the field are discussed in the following lines.

5.3.1 Bonda

To the Bonda, diseases and death are believed to be the work of the evil spirits, black magic and witchcraft. In Bonda society the people depend on Shamans and Shamanins to cure diseases through magico-religious spells and rites. Sometimes they get spirit-possessed and prescribe remedial measures for curing a patient. These ritual and magical functionaries are believed to have power of vision of the deities and spirits and are most knowledgeable about the methods of propitiation for the wellbeing of the people. Generally the Bondas pay their obeisance to the deities by bowing and genuflecting at the time of worship. Sun-dried (arua) rice is the main consecrated food item offered to deities. Liquor is not offered to the deities in any ritual excepting in magico-religious rites performed by the shamans. Various animals like buffalo, goat, lamb, pig and fowl are sacrificed to appease the deities and the spirits. Ghosts and demons are satisfied by offering eggs and fowls. The Bonda women should not go to the burial ground and should not touch the corpse. They should not come out from the house during solar or lunar eclipse or thunderstorm or lightning. They should take light food and avoid eating brinjal, mango and jack fruit. A Bonda father should abstain from eating the head or feet of the sacrificial animals. They believe that deviation if any will leads to misfortune and ill health.

5.3.2 Chuktia Bhunjia:

The common ailments among the Bhunjias are stomach trouble, malaria, skin disease and cases of tuberculosis. Some of the other diseases with which the Bhunjias are afflicted are rheumatic, epileptic and arthritic complains cough and cold, dysentery, diarrhea, and menstrual irregularities. Illness of any kind of the above is believed to be caused largely by malevolent deities and evil spirits. Violation of social and religious taboo also cause bodily ill health. Although some people think that untimely bath, irregularity in taking food, rigorous climate of the area may be responsible for physical ill health. The witches and the sorcerer's who are found among the Chuktia Bhunjias in almost all the villages cause illness through black magic. It is the belief among the Chuktia Bhunjias that every serious disaster or epidemic takes place following

infringe and violation of social and ritual taboos. The tigers play havoc in the area where the people break rules of their society.

As soon as a person falls ill, the common practice is to consult the traditional medicine-man called Jhakar, who is a herbalist and use herbal medicines prescribed by him. The people in general know the common remedies for minor physical complaint and minor injuries. Whenever a person sustains injury, which causes bleeding, a paste made out of the roots of a plant called Khandadhari is applied over the wound. In addition to the herbal medicine magical incantations are considered effective means to check bleedings. Similarly, the leaves of Sahaj tree are made into a paste and applied to the forehead of the patient suffering from fever. The same paste is also used for getting relief from headache and pain in any part of the body. Epileptic fits are cured by using barks is as follows:

The barks of the tree are boiled and this water after it is moderately cooled, poured over the patient. This poured water falls on a hot iron rod over which the patient is held so that the steam coming out of the hot iron touched the patient. This steam is believed to cure epilepsy. There is a simple herbal medicine of curing cough and cold. The person, who suffers from cough and cold, chews three to four yellow myrobalan (*Terminalia chebula*) and swallows the juice of the myrobalan. Dysentery is cured by taking two to four Sal/ seeds twice daily in empty stomach continuously for two to three days. If the herbal medicine is not effective the patient loses patience and resorts the practice of divination. He calls for techniques of detecting the spirit, who is supposed to cause the disease in the patient. On reaching the patient's house the diviner starts performing necessary rituals to get himself possessed by the spirit. As soon as the diviner is possessed with the spirit, he declares the particular evil spirit, who has caused the illness and the reasons for this and prescribes the required therapy and curative measures.

The observations, which are given above, give an impression that the Bhunjias are tradition bound and depend upon the traditional methods and are not interested in allopathic treatment./ in fact, it is not so. The nearest health centre providing modern medical facilities is located at a distance of 50 kms. from the centre of Sonabera plateau and the road which connects the plateau with block headquarters, where the health centre is located, is not suitable for bus communication. The trucks of the forest contractors, which ply on the road, are not convenient for carrying the patients to the health centre. There is no medical practitioner in the whole area of

Sonabera plateau, During rainy season the road gets damaged at several places by the torrential hill streams and it becomes extremely difficult to cover the distance even on foot. Under these circumstances it is but natural that the people continue to believe in super natural-beings and seek their mercy and blessings at the time of their illness and other difficulties.

5.3.3 Hill-Kharia/Kharia:

The Hill-Kharia/Kharia people believe that totems and taboos refrain them from cutting trees and killing animals and birds. They worship Thakurani, the village deity for prevention and cure of diseases, like small pox and chicken pox. They believe that the cause of illness and diseases are due to the wrath of god and goddesses and spirit intrusion, evil eye, sorcery, breach of taboo and norms. Their propitiation of different gods and spirits by observing rites and rituals and offering sacrifices is believed to be getting rid of illness and to be blessed with boon. The spirits who resides in hills and forests control nature. They believe black and white magic and thus invite the Ginia or Raulia, who is expert in diagnosis of cause of the diseases by examining oil, water and sticks in the names of the patients. The Hinduised Hill-Kharia/Kharia depend on magico-religious specialists (Gunia) and medicineman (Kabiraj), who treat a sick boy.

5.3.4 Juang:

The Juang believe that injury and diseases are often due to witchcraft. They believe the power of Rau-uria, who is their doctor, psychiatrist, faith healers and the prophet. The Rau-uria's work is diagnostic – to discover the cause of any calamity to individual and the community. He does this by the usual methods of winnowing fan, the gourd, the measuring sticks. To protect a child from lightning a ring from the country shoe is put on its finger. Dream is also believed to bring illness. Dreams, like flying, marriage, excretion, applying turmeric paste on body bring death, very ill, pain in stomach, snake bite or cut by axe, respectively.'

5.3.5 Pauri Bhuinya:

The Pauri Bhuinyas belief in many Gods and Goddesses. Some of them are benevolent and others malevolent. They believe that wellbeing and good health is under the control of their gods, deities and spirits, like Dharam Devata (Sun God), Basukimata (Earth Goddess), Baram (village deity). All these are benevolent in nature and appeased by the worship in the prescribed manner. Besides, they also satisfied different malevolent spirits at the time of need. The Shaman

(Raulia) and Bejuni pay roles and control them. They help in retaining social health and happiness and well being of the tribe. He is a good psychologist, an astrologer and a medicine man. The Bejuni is a Sorcerer, who is famous for the black magic and people are afraid of him. The Paudi Bhuyans change their dwellings specially when the villagers suffer from divine curse leading to the spread of epidemics, tiger menace, break of cholera, etc. The sorcerers set the evil spirits against persons of their target by means of divination and magical performance and cause illness. There are shamans and witch-doctors who know the techniques of counter acting the evil effects of black magic. A study of both black and white magic reveals the world of information about illness and disease, supernatural agencies causing such illness, machinations of witchcraft, evileye, blackmailing deities and methods of curing illness.

5.3.6 Lanjia Saora/ Saora:

The Lanjia Saora/Saora believe that the sufferings are mainly due to, the wrath of the gods and goddesses, evil spirits, black magic, witch craft, sorcery, evil eye and breach of taboo, etc. The common diseases found among the Saoras are malaria, gastro-intestinal disorder, diarrhea, dysentery, respiratory troubles (Bronchitis), hook worm and round worm infections, skin diseases, etc. General diseases such as yaws, leprosy, tuberculosis and filarial are not found among them. Besides, they suffer from mal-nutrition which is very commonly marked among the children. For treatment of these diseases they mostly resort to magical method by taking the help of the traditional medicine men (Shaman) of the village. In magical treatment the shaman establishes a direct link with the spirit who is responsible for causing illness and for its satiation offerings are made and animals are sacrificed. Besides magical therapy, the Saoras also make use of some herbal preparations according to the advice of the medicine man for treatment of certain diseases.

Some are benevolent; some are neutral and some others malevolent. All these gods and spirits have constant demand on the living beings. If their demands are not met they can cause havoc. The malevolent spirits and gods they can bring misery. The Saora society is full of shamans called Kudan (Male) and Kudanboi (female). They play a great role in curing all types of illness and diseases. The Saoras do not conceive of any cause of illness other than the machination of evil spirits. When illness happens, it is the shaman's chief function to determine

which god or ancestor is dissatisfied and the kind of animals required to be sacrificed in order that they might be conciliated.

Every shaman has a female tutelary and every shamanin has a male tutelary. The relationship between these two sets of pairs is same as that of husband and wife. A shamanin is supposed to have sexual relationship with the male tutelary and have children born to her out of the union. She is supposed to feed her breast these children who live in other world. In a attempt to go on a mission into the unseen world, the shaman, in trance, with his eyes half closed and fists clenched, tries to establish a direct link with the god or spirit who is responsible for causing the misery. In this mission the assistance of the spirit wife is also taken to find out the right deity. When finally the shaman is shaken with convulsions, it means that the god responsible for causing the illness has revealed himself. The god then makes his wishes known using the shaman as his medium. The animals demanded are then brought and sacrificed and other offerings made. During the treatment of illness, in most cases a single pair of sacrifices is not enough to satisfy the ravenous appetites of the gods and ancestors. As the illness takes its natural course and fever intensifies, the shaman is called in again and there are further sacrifices of animals which are costlier than those sacrificed in the first instance.

The Kudan is the shaman who combines the functions of priest, prophet and medicine man. His female counter part is the Kudanboi. The process of becoming fullfledged Kudan is arduous. An adolescent boy, who becomes a Kudan in future, is often troubled in dreams by a female spirit who is in constant demand to him. As a result, he puts himself in great panic troubled with headaches and other types of illness. The change in him is finally noticed by his parents who are aware that he has spiritual problems. After the same has been confessed by the boy arrangements are made for his marriage to the spirit visitor of his dreams. Since this marriage is very important occasion, it is attended by various religious dignitaries and guests from all around. After the spiritual marriage he becomes a full-fledged Kudan. The spiritual marriage of a Kudan however does not deter him from taking an earthly wife.

5.3.7 Bhumij:

The Bhumij people do believe ill fates and illness are caused by malevolent spirits, namely Kudra, Bisaychandi, Varam, etc. They also believe in black magic. To be free from diseases they take the help of Dehuri for worshiping the deities and spirits. To satisfy the

malevolent spirits they take the help of the traditional witch doctor. According to his advice the Bhumij people offer sacrifice of fowls, goats, and rice beer and mahuli liquor to be cured from the diseases.

5.3.8 Gadaba:

The Gadaba believe that sickness is caused by witches and caste of evil eye, household deity not worshipped properly and displaced, broken moral and religious norms, rituals like gotar or dasa not performed breach of ancestral relationship, intrusion to the territorial jurisdiction of deities in hills, forests, rivers, streams, or fallure in propitiating them through sacrifices and Improper celebration of festivals and rituals. Accidents are believed as punishment for broken of relations with deities. Negligence in worshipping the god of wild animals will bring wounded in hunting, attack by wild animals, Sun stroke, drowning to escape from these maladies Gadaba seek treatment from Disari or a Gunia the Disari organize a sacrifice of goat, chicken, egg, etc. lack of health is believed to be devine visitation. The Gurumai (traditional male Doctor) and Gurumai try to establish relationship with the concerned deity and also administer certain herbal remedies.

When Gadabas suffer from various diseases, they take help of the Disari to prevent them from these diseases. Disari prepares a cart and several statutes like horse, elephant, bullock etc. on the arth. These statutes are kept in the cart and brought to a three square place. They offer sacrifices of goat, pig, chicken, etc at that place. They believe that by doing so, contagious diseases will disappear from their society. Howling of male jackle is believed to be the happening of unnatural death of one from the community. Suffering from fever will be cured by worshipping moon god with help of the Gurumai.

5.3.9 Gond:

Gonds believe evil spirits and the gods' displeasure cause most diseases and misfortunes. They ask soothsayers and diviners to find out the cause of problems and to suggest remedies. Sometimes, magicians and [Shamans](#) (healers) can provide this advice. Magicians use special formulas to control the actions of a deity or spirit that is causing a particular affliction. Shamans fall into a trance and give voice to the demands of an offended god or spirit. They worship all supernatural entities in all occasions to get rid of diseases and pestilence. Each Gond clan has its

guardian spirit, namely Persapen, which guards the clan member from external injury and evil spirits. The Persapen is generally benevolent spirit but can also be dangerous and violent if disturbed, dishonoured and shown no suitable reverence in festive occasion. The God of smallpox, Shitala Mata if venerated properly, help ward off the ailments. Certain deities, mostly females, demand raw blood of chickens, goats and at times he buffalos. The Gond performs rituals as a source of healing against ailments. The Gonds have genna as a parallel of taboo and chini of forbidden. A person killed by a tiger is genna. His clothes, house, tools, weapons, utensils all become genna to them and propitiation measures are taken to ward off the effect.

5.3.10 Kandha:

The Kandha worship the goddess to cure measles, chickenpox and a few other diseases. They also sacrifice animals and offer liquor to their deities for curing certain diseases and increasing the fertility of the soil. A good number of plant species are also worshipped for various reasons. In their sacred places the Kandhas plant some useful shrubs and trees. The health of Kandha people has been invariably connected with socio-cultural and magico-religious practices since ancient times. They have developed indigenous way of healing practices to protect their health against various kinds of diseases. There is a popular belief prevalent among them is that some of the diseases are caused by evil spirits as well as malevolent deities for which they observe specific rituals to appease them. In case of debility or some complicating sickness, the priest makes diagnosis through trance to find the malicious spirit seeking termination of pregnancy. The ritual action is taken by the family to put the matter right. The most feared members of the community seek to manipulate the powers of evil for their individual gains. Unseen attacks occur against men, the cause may be jealousy of someone who is more fortunate or powerful, or unduly aggressive, greedy or quarrelsome. In case of women sexual jealousy between two wives of one husband, childless woman against a childbearing proud woman who openly mock the barrenness. The sorcery follows the method of secretly obtaining shed hair, nail pairing, soil from the victim's foot print or sputum or some possession. Transformation into a tiger or snake with intent to cause harm to others is believed to a power possessed by certain evil-intentioned persons.

For Kondha the entire family is sick when one member suffers. And the entire village is sick when one family suffers. If ritual sacrifice is required to restore a broken relationship with the deities, the whole village is involved. So on the appointed day, no goes for the field work.

Verrier Elwin described the diviner priest of the Soar Tribe which applies equally to other tribes of this study. He has the power not only to diagnose the source of the trouble of disease, but also to cure it. He is a doctor, as well as a priest, psychologist as well as magician, the respiratory of tradition, the source of sacred knowledge. His primary duty is that of divination, he seeks the cause in trance and dream.

The priest has good grasp of theological principles. He is equally equipped with knowledge of local geography, history, and economics, circumstance, genealogy of the family members and village gossip. In the state of trance all this knowledge and experience come to use and expressed in a dramatic performance which often has a genuine healing effect.

5.3.12 Koya:

The Koyas believe that all the Gods are kind and benevolent to the mankind. They always look after the welfare of the plant and animal kingdom. They are displeased when human being commit wrong or sinful deeds which goes against the human society. They misfortunes and calamities are caused by the anger of the Gods. For example, due to this belief no Koya individual dares to eat new fruits or crops is ceremonially offered to the Gods, village deities and the ancestral spirits. If anyone breaches this rule, the village community jumps into take corrective action by imposing fine upon the wrong doer and then worshipping the deity to avoid the dangers of calamities to follow the anger of the supernatural beings. On the other hand such beliefs and practices ensure social discipline and conformity.

On the contrary the ghosts and spirits are considered as malevolent to the human beings. They live in the winds, trees, water and hills waiting for an opportunity to cause harm to the mortals. The deity causing small pox and the spirits called Tania and Mata belong to this group. The village witch-doctor called Wadde deals with these harmful spirits. He brings some of the spirit under his control by conducting magico-religious rituals and utilizes them to achieve his ends. In Koya society, Magic and religion and religion are complementary to each other. The Koyas worship their Gods and appease them and get their blessings. When this worship fails to bring them any result they resort to magical practices with the help of Wadda. Wadde is called

upon to perform magical rites to cure diseases, effect smooth delivery of a child and ward off the calamities and epidemic.

The Koya attributed the cause of diseases to either supernatural aggression or sorcery. Due to long suffering from diseases the Koyas abandon the village and settle in a new site to get rid of the evil look of the supernatural elements. If a infant baby fails to suckle its mother's breast milk it is believed to be the evil eye of a spirit. Attack of wild animal is believed to be caused by wrath of angry spirit or deity. They practice divination to appease to deities and cure illness theWadde is their shamans and sorcerers. He is invited during illness to ward off evil spirits and perform prescribed divination of curing the diseases.TheWadde who cures illness caused by the evil spirits also cures wounds cuts, etc. by applying herbal medicines.

5.3.13 Oraon:

The Oraon believe in the existance of a number of deoties, ghosts and spirits, who control their mundane life. The fate of the individual and community depends on their relationship with the supernatural powers who interven in human affairs by bringing diseases and other hardship. They believe that diseases are generally caused by three agencies, i.e. i. vagarioes of nature, ii. Human agencies (witches and sorcers), and iii. supernatural agencies, the malevolent spirits. They still believe in the treatment of the magico-religious parctices. However the educated people believe in the modernemedical facilities.

5.3.14 Munda

The Munda health care system believes in a holistic approach to health. They treat the mind, body and soul of a patient simultaneously as they combine herbal medicines with prayers, sacrifices and good health care practices. They prefer to do daily physical labour, which act as exercise for their body muscles. The Munda traditional healers conduct deliveries and treat common ailments very effectively by using local herbs. Their traditional knowledge of nutrition is also fair and balanced. They use only herbal pesticides instead of chemical pesticides to preserve their seeds and grains.

Mudna believe in Animism. It is the dogma that inanimate objects as well as living beings like mountains, rocks, rivers, trees etc are believed to be inhabited by deities and spirits. The Mundas strongly trust in supernatural spirits and their relationship with supernaturalism is

founded on respectful fear, dependence, self surrender and propitiation. Their spiritual union with these spirits is supposed to be accomplished concretely through supplications, rice beer offerings and animal sacrifices. The medium of contact between super natural powers and the Munda are considered to be the magico-religious functionaries known as the Pahan and the Sokha. They have faith in both benevolent and malevolent deities. Among the malevolent deities, ghost, dakin are extremely familiar.

Santal:

The Santals believe that the village deities and their ancestors' spirits play a vital role in the day to day life. Also they do believe in witchcraft and balk magic. As their believe go, the Witches or Diens posses evil powers to cause harms to others and bring diseases and natural calamities. The culture bound Santals people take help of Naike, Kudam Naike, Ojha (traditional Magico-religious healers), who converse with the spirits through trance and cures illness. The husband of a pregnant woamn never kills any animals and participate in any funeral ceremony. Thus he is prohibited to touch any corpose. The pregnant woaman is not allowed to go to the forest alone. She is refrained from weaping on the death of a relative. This is believed so that her prospective baby is safe from the eyes of the evil spirits. They believe that the spirit of the dead remains in the house and may cause harm to family memebtrs and vllagers until the death riruals are performed

To understand the associated believe on the cause of different diseases among the tribals the investigation has drwn the opinion of as many 320 patients from 16 STs including PTGs, who have undergone with traditional treatments. The result of the investigation shows that their health seeking behaviour also includes the perception about the cause of disease and this perception always leads to the seeking treatment of the traditional healers. The following table shows the tribal's' perception about the causes of different diseases under investigation.

Table 5.2.3: Tribals' perception about the causes of disease

Types of diseases	No specific idea	Environmental changes	Food intake	Wrath of gods/goddesses/ Ancestors	Evil eye/ Evil Spirit
Common Cold	1.1	5.2	22.7	44.3	23.8
Fever	3.5	6.3	19.2	44.3	23.8

Malaria	2.6	3.1	22.7	48.2	21.5
Typhoid	2.9	3.6	9.2	51.2	29.6
Measles	1.7	7.3	16.4	43.7	22.5
Diarrhea	2.7	11.1	12.2	33.8	37.1
Allergy	2.1	4.5	8.4	56.1	23.8
Intestinal disorder	12.1	9.3	29.1	34.6	21.2
Jaundice	13.2	11.1	22.7	41.1	27.2

The above table revealed that out of 320 patients; about 4 % had no specific idea about cause of different diseases. While 3% to 11% tribal patients perceived change of weather and environmental cause different diseases, 85 29 % patients believe intake of food as the cause of different diseases, especially Intestinal disorder (29%), Jaundice and Malaria (23% each). The highest proportion of people, about 34 % to 56 % tribal patients, perceive wrath of gods/goddesses/ Ancestors is cause of occurring diseases. Similarly, 22% to 30 % of the total patients opined evil eye/spirit is the cause of different diseases. This also established the reason why most of the affected people sought treatment of traditional healers instead of modern medicine. The ill effect of bad work done in the past was also perceived as one of the causes of this disease and the affect of bad spirit worked throughout all the disease as the main cause of diseases.

Therefore, it is proved that the common tribes of Odisha strongly believe in the efficacy of magic, and are afraid of witches and sorcerers. In folk beliefs magical power are wielded by some persons with special training in magical folklore and practices. Some others, in a way exclude evil magical power at the sight of beautiful, lovable or covetable objects, animals, crops or even presentable human beings. These occult powers are known as evil eye (near) or evil touch. People suffering from stomach and minor ailments, cows not yielding milk, plants not yielding sufficient crops or women not paying amorous attention all are taken care of by practitioners of magic in villagers. Very often magic means are applied against the possible harm of the evil spirits or goddesses. For example, a child going out of the house is usually anointed with a particular paste, usually a mixture of cow dung and solarium to ward off evil spirits. Exorcisms of goddesses of diseases or spirits of epidemics are affected with the help of magical objects and recitation of magical spells. The Gadaba of Koraput district believes that there was

no death and no witches in the beginning. Mahaprabhu thought that there would soon be no room for all people in the world.

Among the sacred beliefs the faith in spirit is most common with the tribal and thus animists. This animistic belief is rather a universal in feature of the religion the tribal have. For them all spots and places are holy as they are the seats of spirits. Animals, plants, ponds, trees, rivers, stones, hills or mountains are all abodes of spirits. The dead are no exception to this rule as they still ease through soul or are reborn in the shape of offspring.

The whole neighborhood whether village or forest in which the tribal live is full of fears. For all the tribes whether major, like the Santhal, Munda, or minor like the Birhor, Chenchu or the forest-hunting tribes of north India, the whole world is full of spirits. Worship of nature is another belief which prevails among the tribal. Sun, Moon and earth are considered the creator or supreme power. In middle India, the Santhals, Mundas, Malaers, and Birhors of tribal Bihar identify Sun as Sing Bonga, i.e. the supreme god. The Santhals equate Dharmesh, the supreme deity; with the Sun with this regard it as husband of Dharti Mata, the Mother Earth. The Bhumiji of Odisha also bow down before their supreme being, the Sun God. The Earth, the Sun, the Fire, the Water is regarded as deities, the great supernatural being and is believed in by the Bondos of Odisha. For them the creator is Sun. The Saoras of the area place the responsibility of creating man on the shoulders of the Sun and the Juangs think that the first man made their appearance out of the earth. Offerings are made to goddess earth at all new eating festivals. Further the Sun is their Dharam Devata or supreme god. Jakri the earth Goddess, Wahra as Dharma Raja and the Sun are worshipped by all Kuvi Kandhas.

Apart from nature as a whole the tribal people have also cognate themselves with the animals and plants in the form of totems. Totemism is a common feature of Indian tribal population and most of them believe in their mysterious relation with some plants, besides animals. The Munda and Oraon have their totemic clans. The Santhals and Kharia have clans named after plants or animals or material objects. All these tribes consider that the totemic plants or animals have helped or protected their respective ancestors of the claim concerned or have proved to be of some peculiar use of service. The people show reverence for and do not destroy their fruits or flowers. A totemic object found in a condition of disease is nursed back. The activities of ancestors are quite evident for tribal and ancestor worship find an important place in their religious beliefs. They recognize that man's power is restricted. The spirit of ancestors called

or worshipped annually, occasionally or when one is economically able to perform it. The tribal believe that unless the spirit of newly dead ancestors is worshipped it continues to exist, and appears in dreams. It always harasses its relative to expedite the preparation for worship, mortuary sacrifices and feast.

The gotra ceremony of Gadabas and Karja and Guar ceremony of the Soaras of Odisha, involving scarifies of buffaloes, which are very expensive, reveal the strong belief of people in their ancestors. Owing to these ceremonies the spirits are able to enter the unseen worlds and achieve the status of ancestors. The relatives of the dead attribute their misfortunes to the spiteful spirits. However, once established in the unseen world, they become patronizing. They believe that a dead person remains disconsolate, wanders uneasily in the neighborhood and brings misery to its descendants until a stone is erected in its name and a buffalo sacrificed. And it is only after this that it may enter the abode of spirit. The Bison-born Maria Gonds and have their stone rooms as the place fixed for the departed soul and belief in human immortality. After death it becomes their responsibility to sustain the soul of the dead as is done for others that have gone before. Soon as a child is born its body is eagerly examined for detecting birthmarks, if any, which reveal who among the soul of ancestors has taken rebirth. For the MuriaGonds worship of the departed souls is the focal point of their religion. In every Muria house, among their grain baskets is a pot for the departed soul to which they make offerings on all important occasions throughout their lives.

Taboo is another sacred belief which is a rather negative custom of any belief. It has become superstition for the people. The exclusion of Kharia women from certain religious festivals and ritualistic observances like periodical segregation during their menstrual period appears to be due not any assumed inferiority in their status but due to the tribal horror of the manses which is supposed to attract evil spirits. The Oraon women also observe the taboo of touching a plough. If these taboos are transgressed, an expiation ceremony has got to be undergone. The Gond of Odisha does not touch a menstruating woman for that is enough to destroy a good harvest. The male Juang of the Keonjhar area of Odisha are denied many principal receptions. A breach of law being on the entire society divine wrath. Thus, it is evident that the religious beliefs also exist in the form of taboos. In other words the tribal has been reinforced by taboos.

“Illness is believed to be caused by mostly malevolent spirits and unless these spirits are properly propitiated with sacrifices and offerings one may not hope for a quick recovery” (Rout,: 1969:22). The Juang ignore treatment of minor ailments. Only when they fall seriously ill, they seek traditional method of curing diseases which include appeasing the deities and/or use of herbal medicines. Recently the traditional practice of the Jaung for treatment of diseases has changed partly. A dual method treatment, both modern as well as traditional, for curing and preventing diseases is practiced among them. Free distribution of allopathic medicines by J.D.A. and Additional P.H.C., Gonasika and health measures of line Departments have brought some changes in their perceptions about causes of sickness.

The Juang do not view health and sickness as purely physical conditions. They believe them to have religious and social dimensions (Nayak, 1993: 107). They put forward mainly three reasons to account for their ailments of different types. These are (i) natural causes, (ii) human causes and (iii) supernatural causes (THRTI: 1989:30). According to the present study, their responses regarding causes of lines are wrath of evil spirits (84%) followed by physical disorder (9%), wrath of God (4.5%), hot and cold effect (2.5%).

“Illness is believed to be caused by mostly malevolent spirits and unless these spirits are properly propitiated with sacrifices and offerings one may not hope for a quick recovery” (Rout,: 1969:22). The Juang ignore treatment of minor ailments. Only when they fall seriously ill, they seek traditional method of curing diseases which include appeasing the deities and/or use of herbal medicines. Recently the traditional practice of the Jaung for treatment of diseases has changed partly. A dual method treatment, both modern as well as traditional, for curing and preventing diseases is practiced among them. Free distribution of allopathic medicines by P.H.C and medicals and programmes of Health Departments have brought some changes in their perceptions about causes of sickness.

It is a faith, prevailing among tribes that diseases are caused by supernatural agencies. Broadly, the tribal people believe in four types of super-natural powers. These are (1) protective spirits who always protect them; (2) benevolent spirits who are worshiped at the community and familial level regularly, otherwise they may bring diseases or death; (3) malevolent spirits - the evil spirits who control smallpox, fever, abortion, etc. and (4) Ancestral spirits, the spirits of their ancestors and always protect them.

All most all the tribals under the study believe that measles (gundi) and chickenpox (maa), occur due to the wrath of the Goddess (Thakurani) on the patient. Thus, they prefer to visit the traditional magico-religious healers, 'Desari'/Dehuri rather than relying on a medical practitioner. The worship before the village deity is always a community affair where every village participate and contribute with a view to prevent and cure the diseases. Such community worship is widely prevalent among the tribes, like Juang, Saora, Sabara, Dongaria Kandha, Kutia Kandha, etc. As for example, the Sabar people believe in "Goddess Bhuasuni" - the village deity, fondly called as 'Maa Bhuasuni'. The village priest who is also the community medicine man is a devotee of 'Goddess Bhuasuni'; he gets possessed by some supernatural power through which he could communicate with the goddess. The period during which the goddess enters into the body of the man and communicates with people is called 'KALISI'. KALISI listens to people's illness/problems and prescribes solutions to manage the same.

In the treatment of diseases the STs depend on magico-religious treatment although modern medical treatment is resorted by them. The Shaman is called Mati and quakes are called Kabiraj, who extend traditional methods of treatment to cure illness. According to respondents common causes of illness are severity of weather, poor environment, evil spirit and wrath of God.

CHAPTER-VI

Traditional Healers: Traditional Medicine Men & Magico-Religious Practitioners

6.0 Definition and Roles of Medicine Man:

A tribal Medicine Man is a priestly healer and spiritual leader who believed that physical nature might be brought under the control of man, in the person of a Medicine Man. The tribal communities adhere to a range of beliefs, ceremonies and rituals regarding communication with the spiritual world in which their religious leader, the Medicine Man, enters supernatural realms

particularly when the tribe is facing adversity or need to obtain solutions to problems afflicting the community including sickness. As functional definition goes, a man is known by what he does. So also a Medicine Man is known as he works with medicine and/or rituals for cure of diseases of his tribal people and community. A Medicine Man is a healer, communicator, educator, forecaster and mystic. The medicine Man may be a magico- religious expert or medicine specialist or even both a medicine specialist as well as a magico-religious expert.

The nomenclatures of Medicine Men and Magicians/Witch Doctor vary from tribe to tribe. Also at time the same nomenclature is used by two or more tribes. The following statement shows the nomenclatures of Medicine Men and Magicians/Witch Doctor prevalent among the study tribes/PTG societies:-

Sl. No.	Name of the Tribes	Nomenclature of	
		Medicine Men	Magician/ Witch Doctors
1.	Bondo	Disari	Sisa, Guru, Gurumai
2.	Chukti Bhunjia	Jhakar	
3.	Juang	Raulia	Raulia, Gunia
4.	Khaia/Hill-Kharia	Dehuri	Gunia
5.	Paudi Bhuyan	Dehuri, Raulia	Bejuni, Raulia,
6.	Juang	Dehuri, Raulia	Raulia,
7.	Saora/Lanjia Saora`	Disari	Kudan, Kudanboi
8.	Bhumij	Dehuri	Disari
9.	Dharua	Disari	Disari
10.	Gadaba	Gurumai	Disari
11.	Desia Kandha	Beju, Bejuni	
12.	Kisan	Disari	Disari
13.	Koya	Gunia, Mat	Wadde
14.	Munda	Pahan	Pahan, Sokha
15.	Oraon	Bhagamati	Bhagamati, Kushrain
16.	Santal	Ojha	Disari

The role of the Medicine Man differs from tribe to tribe as there are some regional and tribal variations to their beliefs in Shamanism. The Medicine Man used appropriate words,

chants, objects, dances and rituals to protect men from evil spirits - his role is that of opponent to the bad spirits and of savior of the layman. However, the following are some common roles that are shared by every Medicine Man.

- The Medicine Man is a healer, educator and historian, the keeper of myths, legends, traditions and tribal wisdom relating to medicine and cure.
- The Medicine Man is a spirited communicator and provides help and advice to members of the tribe.
- The Medicine Man is a healer. He possesses supernatural healing powers and the ability to treat sickness caused by evil spirits.
- The Medicine Man is a prophet. He has the ability to perform various forms of prediction.
- The Medicine Man is a mystic and possesses the ability to leave the body and communicate with the spirit world.

Traditional tribal healers or magico-religious specialists are popularly known as *healers* or specialists in ethnic medicine. They perform the role of a religious leader to forecast the auspicious days and period for festive occasions and also perform certain rituals. All *healers* do not play the role of traditional healers. The *healers* adopt the process of divination to invoke deities and spirits by chanting spells so as to ascertain the cause of affliction. In almost all cases they prescribed certain food taboos and instruct to arrange for the prophylactic rite. Patients suffering from diseases caused due to physical and environmental factors are treated directly with ethno-medicines.

6.1. Profiles of Medicine Men and their Patients:

The present investigation tries to present the socio-economic profiles of traditional tribal healers or magico-religious specialists as well as their patients, each category separately. During the field survey the Research team had interacted with 74 traditional healers. Among them 41 are medicine men and 33 are magico-religious practitioners. Out of the total 74 healers, 62 are men and 12 are women. All most all 66 healers are literate and only 8(11%) healers are illiterate,

22(30%) are trained. All the healers are quite experienced, which varies from 5 years to more than 10 years. Details are indicated at the following Table: 6.1.

Table: 6.1 Profiles of Tribal Healers: N = 74

Specialization in Treatment of Diseases	Gender			Age Group		Educational Qualifications			Training Received	Experience Gained (Yrs.)		
	M	F	T	35-50	50 - 65	Primary	Metric	M +		5	10	10 +
Medicine men	33	8	41	25	16	13	14	4	15	2	3	36
Magico-Religious Healers	29	4	33	13	20	13	12	8	7	4	8	21
Total	62	12	74	38	36	26	26	14	22	6	11	57

The socio-economic profiles of both the categories of healers are recorded separately for each category, which has been discussed below.

Table: 6.2 Profiles of Tribal Healers as per Specialization: N =41

Specialization in Treatment of Diseases	Gender		Age Group		Educational Qualifications			Training Received	Experience Gained (Yrs.)		
	M	F	35-50	50 - 65	Primary	Metric	M +		5	10	10 +
Skin	3	1	4		1	3		2	1		3
Gynecologist	4	2	3	3	2	2	2	1			6
Psychiatric	5	1	5	1	2	4		2			6
Eye Specialist	1	1	2		1	1		1			2
Pediatrics	3	1	2	2	2	2		3			4
Orthopedic	8	1	8	1	4	1	1	4	1		8
General	9	1	1	9	1	1	1	2		3	7
Total	33	8	25	16	13	14	4	15	2	3	36

(Source: Field Survey)

Table-6.2 shows that there are a total number of 41 tribal traditional healers, out of which 33 are males and 8 females. All 41 healers are above 35 years and below 65 years of age. Among them, 25 healers are in the age group of 35-50 years and the rest are in the age group of 50-65 years. As many as 31 out of 41 healers are educated and the rest 10 healers are illiterate. Among the educated ones, 13 have studied up to primary level, 14 are matriculate and 4 are at the educational level of above metric. According to their traditional healing profession out of 41

healers, 31 healers are specialists in treating different diseases, like Skin(4 including 1 female), Gynecologist(4 including 2 females), Psychiatric(6 including 1 female), Eye Specialist(2, one male and 1 female), Pediatrics (4 including 1 female), Orthopedic (9 including 1 female) and the remaining 10 are general healers without any specialization, but have knowledge to treat several diseases. Among 41 traditional healers, only 15 healers are trained by their local Gurus, but more than double their numbers, i.e.26 healers are in the healing job without receiving any training. While the highest number of healers (10) is practicing general medicine, the lowest number (2) is found as Eye specialist. All the healers have gained experiences in traditional treatments, which vary from 5 to 10+ years and the highest number of experienced tribal healer is orthopedic specialist. The socio-economic profile of individual tribal healers indicating their gender, age, qualification, experience and specialization are furnished in the following Table 6.2.1.

Table: 6.2.1 Profiles of individual tribal healers with specialization:

Name, Address & Community of Tribal Healers	Male/ Female	Age (Yrs.)	Experience (Yrs.)	Specialization in treatment of diseases
Ramesh Dehury Mayurbhanj, Santala	Male	46	21	Skin
Budhiya Dehury, Mayurbhanj, Santala	Male	55	24	Gynecologist
Gyanaranjan Majhi Mayurbhanj, Hill Khadia	Male	38	12	Psychologist
Chudamani Majhi, Mayurbhanj, Hill Khadia	Male	43	15	Gynecologist
Sanjulata Dehuri Balasore, Bhumij	Female	44	22	Eye specialist
Sura Dehuri Balasore Bhumij	Female	46	21	Gynecologist
Akula Behera Angul Paudi Bhuya	Male	48	24	Pediatrics
Budhu Mahakul Angul, Paudi Bhuyan	Male	43	17	Psychologist
Purandar Nayak Angul, Paudi Bhuyan	Male	44	15	Orthopedic
Irma Kabasi Malkangiri, Koya	Male	61	22	General

Debendra Malkangiri,,Koya	Madkami	Male	67	11	General
Deba Madhi Malkangiri, Koya		Male	55	12	Pediatrics
Soma Muduli Malkangiri, Bonda		Female	52	13	Gynecologist
Sama Kirsani Malkangiri, Bonda		Female	56	12	Pediatrics
Sukra Dhangda Malkangiri,, Bonda	Majhi	Male	57	11	Psychologist
Mehtar Gond Nabarangpur, Gond		Male	61	8	General
Samara Pujari Nabarangpur, Gond		Male	42	24	Eye specialist
Santoshi Nabarangpur,Pujari,Gond		Male	41	12	Orthopedic
Darshan Gamango Gajapati, Lanjia Saora		Male	43	15	Psychologist
Rere Gamango Gajapati, Lanjia Saora		Male	37	22	Orthopedic
Sidha Bhuian Gajapati, Lanjia Saora		Male	39	21	Pediatrics
Nurup Pradhan Sambalpur, Kisan		Male	44	24	General
Samukrisan Sambalpur, Kisan		Male	41	6	Skin Specialist
Sradhakar Kisan Sambalpur, Kisan		Female	42	15	Psychologist
Kadhia Karhan Kandhamal, Desia Kandha		Male	44	22	Orthopedic
Ramachandra Kandhamal, Desia Kandha	Karhan,	Male	48	21	Orthopedic
Kartika Karhan Kandhamal, Desia Kandha		Male	56	24	General
Gaya Kanhar Kandhamal,Desia Kandha		Male	53	12	Gynecologist
Samara Mind Sundargarh, Oraon		Male	51	15	Orthopedic
Sajat Tappo Sundargarh, Oraon		Female	55	22	General
Ramaprasad Nuapada,Chuktia Bhumija	Darsan,	Male	54	21	General
Gaja Mallick Nuapada,Chuktia Bhunija		Male	46	24	Psychologist
Gandhrab Mallick Nuapada, Chuktia Bhunija		Male	47	17	Orthopedic

Kailasa Munda Keonjhar, Munda	Male	44	15	Skin Specialist
Gauranga Juang Keonjhar, Munda	Male	43	22	Gynecologist
Chaturi Juang Keonjhar, Juang	Female	42	11	Orthopedic
Bhima Munda Keonjhar, Juang	Female	49	12	Skin Specialist
Paglu Dharua Koraput, Gadaba	Male	52	15	General
Adia Dharua Koraput, Gadaba	Male	53	9	General
Likhan Jhankar Koraput, Dharua	Male	49	6	Orthopedic
Rama Munda Koraput, Dharua	Female	53	8	General

(Source: Field Survey, 2012-13)

It is found that the highest numbers of tribal healers (4) are found in the community of Desia Kandha tribe of Kandhamal. Every tribal healer practicing the traditional method of their own, but their specialization is different. The healers are specialized in treatment of the skin, Gynec, bone, eye, madness diseases. Our research team found that the educational qualification of every tribal healers are under metric. The experience of tribal healers varies from minimum 6years to maximum 25 years.

**Table: 6.2 Profiles of patients of tribal healers with their diseases and treatment received:
N =186**

Diseases of Patients undergone Treatments	Gender			Age Grade		Educational Qualification				Duration of treatment		
	M	F	T	Child	Adult	Illiterate	Pr.	Mc	M +	1	2	2 +
Skin Disease	5	7	12	4	8	3	3	4	2	1	2	9
Common cold	17	18	35	8	27	10	12	9	4	6	8	21
Fever	13	11	24	2	22	4	8	9	3	3	1	20
Diarrhea	16	21	37	3	34	9	5	18	5	1	6	30
Allergy	13	1	14	2	12	2	7	3	2	8	5	1
Intestinal Disorder	8	5	13	3	10	3	4	4	2	7	3	3

Jaundice	4	11	15	2	13	6	5	3	1	12	1	2
Others	9	15	24	5	19	8	8	4	4	6	6	12
Total	85	89	174	29	145	45	52	54	23	44	32	98

(Source: Field Survey, 2012-13)

There were 186 patients of tribal healers. Out of them as many as 174 patients were made available for response to our questions. The findings are given in the Table 6.2. It shows that out of 174 patients, 85 are male and 89 are female. Among the patients there are 29 Children and 145 adults. Only (129/74%) of the total patients are literates including educational level like, (52/30%) Primary level, (54/31%) metric and (23/13%) above metric.

The Table 6.2.1 provides the socio-economic profiles of individual tribal patients, who have been treated by the traditional healers. It indicates their gender, age, qualifications, experiences and year of treatments in the following statement.

Table: 6.2.1 Profiles of patients of tribal healers with their diseases and treatments received: N=186

Name of the Patients Name of the District Name of the Community	Gender	Age	Disease	Type of treatment Modern or traditional	Years of treatment
Kisan, Majhi, Mayurbhanj Santal	Male	35	Common Cold	Traditional	4 Years
Kisan Kisku Mayurbhanj, Santal	Male	56	Fever	Traditional	2 Years
Krushna Kisku Mayurbhanj, Santal	Male	54	Fever	Traditional	2 Years
Falguni Beshra, Mayurbhanj, Santal	Female	44	Typhoid	Traditional	2 Months
Hrushikesh Naik, Mayurbhanj, Santal	Male	44	Measles	Traditional	6 Months
Thakuri Singh Mayurbhanj, Santal	Female	48	Malaria	Traditional	11 Months
Fullamani Beshra, Mayurbhanj, Santal	Female	40	Typhoid	Traditional	2 Months
Jitenaik Mayurbhanj, Santal	Male	38	Measles	Traditional	6 Months
Sambari Naik Mayurbhanj, Santal	Female	50	Diarrhea	Traditional	3 Years

PurnimaDehury, Mayurbhanj,Hill Khadia	Female	46	Allergy	Traditional	5 Months
Pratapchandradehury, Mayurbhanj,Hill Khadia	Male	35	Intestinal disorder	Traditional	3 Months
SahebDehury Mayurbhanj,Hill Khadia	Male	25	Jaundice	Traditional	7 month
Pratush Dehury, Mayurbhanj,Hill Khadia	Male	41	Intestinal disorder	Traditional	3 Months
Sushila Dehury Mayurbhanj,Hill Khadia	Female	25	Jaundice	Traditional	7 month
Mayurbhanj,Surendra Dehury,Hill Khadia	Male	25	Intestinal disorder	Traditional	2 Years
Chubury Dehury, Mayurbhanj,Hill Khadia	Male	18	Malaria	Traditional	9 Months
Mitradehury Mayurbhanj,Hill Khadia	Male	23	Intestinal disorder	Traditional	5 Years
KhetraDehury Mayurbhanj,Hill Khadia	Male	75	Jaundice	Traditional	6 Months
MadhabKhila Koraput,Dharua	Male	25	Jaundice	Traditional	8 Months
Balu Pangi Koraput,Dharua	Male	30	Malaria	Traditional	11 Months
Madhu Dehury Mayurbhanj,Hill Khadia	Male	23	Intestinal disorder	Traditional	5 Years
Khushi Dehury Mayurbhanj,Hill Khadia	Female	55	Jaundice	Traditional	6 Months
MadhabKhila Koraput,Dharua	Male	25	Jaundice	Traditional	8 Months
HariKhila Koraput,Dharua	Male	21	Common Cold	Traditional	1 Months
TemiJuang Keonjhar,Juang	Male	65	Jaundice	Traditional	9 Months
SurendraDehury, Mayurbhanj,Hill Khadia	Male	25	Intestinal disorder	Traditional	2 Years
ChuburyDehury, Mayurbhanj,Hill Khadia	Male	18	Malaria	Traditional	9 Months
Mitrabini Mayurbhanj,Hill Khadia	Female	22	Intestinal disorder	Traditional	5 Years
Khalli Dehury Mayurbhanj,Hill Khadia	Male	55	Jaundice	Traditional	6 Months
MadhabKhila Koraput,Dharua	Male	25	Jaundice	Traditional	8 Months
Ghuni Fadukar Keonjhar,Juang	Female	33	Malaria	Traditional	3 Years
Dukhijuang	Female	65	Common	Traditional	11 Months

Keonjhar,Juang			Cold		
Kamala Fadukar Keonjhar,Juang	Female	30	Malaria	Traditional	3 Years
Ramanai Juang Keonjhar,Juang	Female	65	Common Cold	Traditional	11 Months
Nakin Fadukar Keonjhar,Juang	Female	33	Malaria	Traditional	3 Years
DutikrushnaPradhan, Keonjhar,Juang	Male	72	Common Cold	Traditional	6 Months
SubarnaJuanga Keonjhar, Juang	Male	28	Common Cold	Traditional	3 Months
DukhiJuang Keonjhar,Juang	Female	65	Common Cold	Traditional	1 Year
TinaPradhan Keonjhar,Juang	Female	72	Fever	Traditional	2 Months
GamhaFadukar Keonjhar,Juang	Male	40	Malaria	Traditional	6 Months
MuktaPradhan Keonjhar,Juang	Female	28	Typhoid	Traditional	3 Years
KetakiPradhan Keonjhar,Juang	Female	28	Measles	Traditional	5 Months
Padmakila Keonjhar,Gadaba	Female	50	Diarrhea	Traditional	3 Months
Koraput,Samara Sisa Gadaba	Male	42	Allergy	Traditional	7 Month
Koraput,Matimuduli Gadaba	Male	40	Intestinal disorder	Traditional	2 Years
PadalamMuduli Koraput,Gadaba	Male	50	Jaundice	Traditional	9 Months
Padmakila Keonjhar Gadaba	Female	50	Diarrhea	Traditional	3 Months
Samara Sisa Koraput,Gadaba	Male	42	Allergy	Traditional	7 Month
Matimuduli Koraput,Gadaba	Male	40	Intestinal disorder	Traditional	2 Years
Priti Kila Keonjhar,Gadaba	Female	54	Diarrhea	Traditional	3 Months
Sumatra Sisa Koraput,Gadaba	Male	44	Allergy	Traditional	7 Month
Guni Muduli Koraput,Gadaba	Male	51	Intestinal disorder	Traditional	2 Years
Rami Muduli Koraput,Gadaba	Female	65	Intestinal disorder	Traditional	5 Years
GhasiMuduli Koraput,Gadaba	Male	65	Malaria	Traditional	6 Months
Rama Sisa	Male	40	Common	Traditional	8 Months

Koraput Gadaba			Cold		
LikhanjHankar Nuapada,Chuktia Bhunjia	Male	23	Intestinal disorder	Traditional	11 Months
PaitariMallick Nuapada,Chuktia Bhumija	Male	52	Common Cold	Traditional	1 Months
DurjanMallick Nuapada,Chuktia Bhunjia	Male	37	Malaria	Traditional	9 Months
MuniramMallick Nuapada,Chuktia Bhunjia	Male	24	Intestinal disorder	Traditional	1 Year
Pabitra Kila Keonjhar,Gadba	Male	54	Diarrhea	Traditional	3 Months
Suni Sisa Koraput,Gadaba	Female	44	Allergy	Traditional	7 Month
Guni Muduli Koraput,Gadaba	Male	51	Intestinal disorder	Traditional	2 Years
Rami Muduli Koraput,Gadaba	Female	65	Intestinal disorder	Traditional	5 Years
GhasiMuduli Koraput,Gadaba	Male	65	Malaria	Traditional	6 Months
ChandramaniMallick, Nuapada,Chuktia Bhunjia	Male	23	Malaria	Traditional	2 Months
SubashMallick Nuapada,Chuktia Bhunjia	Male	4	Malaria	Traditional	6 Months
PintaMajhi Nuapada,Chuktia Bhunjia	Male	5	Intestinal disorder	Traditional	3 Years
Amiyamajhi Nuapada,Chuktia Bhunjia	Male	5	Intestinal disorder	Traditional	5 Months
SatyaJhankar Nuapada,Chuktia Bhunjia	Male	4	Malaria	Traditional	3 Months
AkashBarik Nuapada,Chuktia Bhunjia	Male	5	Common Cold	Traditional	7 month
RajuMunda Keonjhar,Munda	Male	22	Intestinal disorder	Traditional	2 Years
GangadharMunda Keonjhar,Munda	Male	20	Common Cold	Traditional	9 Months
Keonjhar,MakuruMunda Munda	Male	20	Common Cold	Traditional	5 Years
Keonjhar,Tapanmunda Munda	Male	28	Fever	Traditional	6 Months
Keonjhar,Ramach Ho Munda	Male	22	Malaria	Traditional	8 Months
Indramunda Keonjhar,Munda	Male	36	Typhoid	Traditional	11 Months
Champaminda Keonjhar,Munda	Female	25	Measles	Traditional	1 Months
Rameshbahanda	Male	68	Diarrhea	Traditional	9 Months

Keonjhar,Munda					
Ramani Ho Keonjhar,Munda	Male	31	Malaria	Traditional	8 Months
Indramunda Keonjhar,Munda	Male	36	Typhoid	Traditional	11 Months
Veena Minda Keonjhar,Munda	Female	25	Measles	Traditional	1 Months
Chhabialmandal Gajapati,Lanjia Saora	Male	26	Allergy	Traditional	11 Months
SumanthMandal Gajapati,Lanjia Saora	Male	31	Intestinal disorder	Traditional	3 Years
Narasingh Gamango, Gajapati,Lanjia Saora	Male	26	Jaundice	Traditional	6 Months
PisalRaita Gajapati,Lanjia Saora	Male	38	Intestinal disorder	Traditional	2 Years
Gajapati,SaisungaMango Lanjia Saora	Male	64	Malaria	Traditional	9 Months
Gajapati,SusamaMandal Lanjia Saora	Female	16	Intestinal disorder	Traditional	5 Years
Gajapati,DauthMandal Lanjia Saora	Male	41	Malaria	Traditional	6 Months
SalimRaita Gajapati,Lanjia S Saora	Male	36	Malaria	Traditional	8 Months
HebalaMandal Gajapati,Lanjia Saora	Female	16	Intestinal disorder	Traditional	11 Months
JaraMandal Gajapati,Lanjia Saora	Male	25	Diarrhea	Traditional	1 Months
PrasantKisan Sambalpur,Kisan	Male	4	Common Cold	Traditional	9 Months
SSuriyaKisan ambalpur,Kisan	Female	1	Allergy	Traditional	11 Months
BhaskarKisan Sambalpur,Kisan	Male	4	Intestinal disorder	Traditional	3 Years
SunitaKisan Sambalpur,Kisan	Female	23	Allergy	Traditional	6 Months
SaisungaMango Gajapati,Lanjia Saora	Male	64	Malaria	Traditional	9 Months
SusamaMandal Gajapati,Lanjia Saora	Female	16	Intestinal disorder	Traditional	5 Years
Drubh Mandal Gajapati,Lanjia Saora	Male	33	Malaria	Traditional	6 Months
Raita Gajapati,Salim Lanjia Saora	Male	36	Malaria	Traditional	8 Months
Hemalata Mandal Gajapati,Lanjia Saora	Female	22	Intestinal disorder	Traditional	11 Months
JaraMandal	Male	25	Diarrhea	Traditional	1 Months

Gajapati,Lanjia Saura					
Sr,KratikKissan ambalpuKisan	Male	20	Diarrhea	Traditional	1 Months
r,SunilKisan SambalpuKisan	Male	12	Allergy	Traditional	9 Months
,AmarKisan Sambalpur Kisan	Male	13	Eye disease	Traditional	11 Months
RamchandraKissan, Sambalpur,Kisan	Male	17	Intestinal disorder	Traditional	3 Years
Karma Chandkisan, Sambalpur,Kisan	Male	4	Diarrhea	Traditional	6 Months
SarswatiSahoo Sambalpur,Kisan	Female	4	Allergy	Traditional	2 Years
BaktiKanhar Kandhamal,Desia Kandha		31	Allergy	Traditional	9 Months
,BhagirathiKanhar, Kandhamal Desia Kandha	Male	32	Common Cold	Traditional	5 Years
JaganthKanhar, Kandhamal,Desia Kandha	Male	45	Fever	Traditional	6 Months
PangarKanhar Kandhamal,Desia Kandha	Male	50	Malaria	Traditional	8 Months
SunitaKanhar Kandhamal,Desia Kandha	Male	38	Typhoid	Traditional	11 Months
KunjaKanhar Kandhamal,Desia Kandha	Female	25	Measles	Traditional	1 Months
Bahubali Kanhar, Kandhamal,Desia Kandha	Male	34	Common Cold	Traditional	5 Years
Jagan Kanhar, Kandhamal,Desia Kandha	Male	47	Fever	Traditional	6 Months
PangarKanhar Kandhamal,Desia Kandha	Male	50	Malaria	Traditional	8 Months
RameshKanhar Kandhamal,Desia Kandha	Male	42	Diarrhea	Traditional	9 Months
ChitnaKanhar Kandhamal,Desia Kandha	Male	18	Allergy	Traditional	11 Months
Kandhamal,KartiKakanhar Desia Kandha	Male	18	Intestinal disorder	Traditional	3 Years
Kandhamal,RajuKanhar Desia Kandha	Male	5	Jaundice	Traditional	6 Months
Sundargarh,Magvridehuri Oran	Male	45	Skin disease	Traditional	9 Months
Sundargarh,BiswaranjanEka Oram	Male	24	Jaundice	Traditional	5 Years
Sundargarh,ChandamaniEka Oran	Male	46	Skin disease	Traditional	6 Months
Sundargarh,BisriMinz	Male	55	Allergy	Traditional	8 Months

Oran					
Sundargarh,Sukuoram Oran	Male	45	Allergy	Traditional	11 Months
Sundargarh,AnantaEka Oran	Male	20	Jaundice	Traditional	1 Months
Sundargarh,RatnIeka Oran	Female	60	Skin disease	Traditional	9 Months
Sundargarh,LalitaMinz Oran	Female	35	Eye disease	Traditional	11 Months
Sundargarh,Gutaeka Oran	Female	51	Eye disease	Traditional	3 Years
Sundargarh,BisratNaik Oran	Male	46	Jaundice	Traditional	6 Months
Malkangiri,GangeMadkami Bonda	Female	60	Jaundice	Traditional	5 Months
Malkangiri,Adibarimuduli Bonda	Female	26	Measles	Traditional	3 Months
Malkangiri,Lachhmakirsani Bonda	Female	59	Common Cold	Traditional	7 Months
Malkangiri,Dhabullikirjani Bonda	Male	36	Fever	Traditional	2 Years
Malkangiri,Chankikirsani Bonda	Female	14	Malaria	Traditional	9 Months
Malkangiri,RajuMuduli Bonda	Male	18	Typhoid	Traditional	5 Years
Malkangiri,SaMabatri Bonda	Male	29	Measles	Traditional	6 Months
Malkangiri,MulyakirSani Bonda	Male	23	Diarrhea	Traditional	8 Months
Malkangiri,GurubarikirSani Bonda	Female	23	Allergy	Traditional	11 Months
Malkangiri,Suhil Kirjani Bonda	Male	36	Fever	Traditional	2 Years
Malkangiri,Champabati Sani, Bonda	Female	15	Malaria	Traditional	9 Months
Malkangiri,RajuMuduli Bonda	Male	18	Typhoid	Traditional	5 Years
Malkangiri,SamakirSani Bonda	Male	20	Intestinal disorder	Traditional	1 Months
Malkangiri,SukraBatri Bonda	Male	69	Jaundice	Traditional	9 Months
Nabarangpur,GhenuraMhari jan,Gonda	Male	60	Eye disease	Traditional	11 Months
Nabarangpur,JagannathrajGond, Gonda	Male	35	Jaundice	Traditional	3 Years
Nabarangpur,Temramali	Male	36	Skin	Traditional	6 Months

Gonda			disease		
Nabarangpur,Niramalraj Gond,Gonda	Male	36	Jaundice	Traditional	2 Years
Nabarangpur,GuptaMali Gonda	Male	30	Measles	Traditional	9 Months
Nabarangpur,Gurubanmali Gonda	Male	33	Intestinal disorder	Traditional	5 Years
Nabarangpur,NakSinghmali Gonda	Male	65	Common Cold	Traditional	6 Months
Nabarangpur,SanrajGond Gonda	Male	30	Fever	Traditional	8 Months
Nabarangpur,Lucky Gond Gonda	Male	50	Malaria	Traditional	11 Months
Nabarangpur,Prafullamali Gonda	Male	30	Typhoid	Traditional	1 Months
Nabarangpur,Ghenuramhari jan,Gonda	Male	60	Measles	Traditional	9 Months
Angul,Ratnakarbehera Chuktia Bhunjia	Male	33	Diarrhea	Traditional	11 Months
Angul,Syamsundarbehera Chuktia Bhunjia	Male	60	Allergy	Traditional	3 Years
Angul,Susmitabehera Chuktia Bhunjia	Female	28	Intestinal disorder	Traditional	6 Months
Angul,Rajupradhan Chuktia Bhunjia	Male	26	Jaundice	Traditional	11 Months
Angul,AnadiPradhan Chuktia Bhunjia	Male	30	Eye disease	Traditional	3 Years
Angul,ChitaranjanPradhan Chuktia Bhunjia	Male	24	Jaundice	Traditional	6 Months
Angul,PabitraNayak Chuktia Bhunjia	Male	39	Eye disease	Traditional	2 Years
Angul,BabuliNayak Chuktia Bhunjia	Male	24	Jaundice	Traditional	9 Months
Angul,MaliNayak Chuktia Bhunjia	Female	35	Jaundice	Traditional	5 Years
Balasore,MadhumitaRoy Bhumija	Male	33	Jaundice	Traditional	6 Months
Balasore,Sanjunayak Bhumij	Female	35	Jaundice	Traditional	8 Months
Angul,Bhibhuti Pradhan Chuktia Bhunjia	Male	24	Jaundice	Traditional	6 Months
Angul,Prabitra Nayak Chuktia Bhunjia	Male	44	Eye disease	Traditional	2 Years
Angul,BabuliNayak Chuktia Bhunjia	Male	24	Jaundice	Traditional	9 Months
Balasore,Dillipdalai	Female	35	Measles	Traditional	11 Months

Bhumij					
Balasore,RabindraDehury Bhumij	Male	28	Diarrhea	Traditional	1 Months
Malkangiri, RameMadhi Koya	Female	30	Jaundice	Traditional	9 Months
Malkangiri, ButukpaDiami Koya	Female	60	Intestinal disorder	Traditional	11 Months
Malkangiri,Era Pradhan Koya	Male	35	Common Cold	Traditional	3 Years
Malkangiri,BhimeMadkami Koya	Female	40	Fever	Traditional	6 Months
Malkangiri,AparaoMadhi Koya	Male	31	Malaria	Traditional	8 Months
Malkangiri, MukundaMadhi, Koya	Male	35	Typhoid	Traditional	11 Months
Malkangiri, DuleMadhi Koya	Male	55	Measles	Traditional	1 Months
Malkangiri, ParbatiMadhi Koya	Female	40	Diarrhea	Traditional	9 Months
Malkangiri, BadriMadhi Koya	Female	46	Allergy	Traditional	11 Months
Malkangiri, AdameMadhi Koya	Female	38	Intestinal disorder	Traditional	3 Years
Malkangiri, MukundaMadhi, Koya	Male	35	Typhoid	Traditional	11 Months
Balasore,Dillipdalai Bhumija	Female	35	Measles	Traditional	11 Months
Malkangiri,Suhil Kirjani Bonda	Male	36	Fever	Traditional	2 Years
Sambalpur,KratikKissan Kisan	Male	20	Diarrhea	Traditional	1 Months
Sambalpur,SunilKisan Kisan	Male	12	Allergy	Traditional	9 Months
Mayurbhanj,Chubury Dehury,Hill Khadia	Male	18	Malaria	Traditional	9 Months

(Source: Field Survey, 2012-13)

Table: 6.3 Profiles of Magico-Religious Healers as per Specialization: N = 33

Specialization in treatment of diseases	Gender		Age Group		Educational qualification			Training Receive d	Experience (Yrs.)		
	M	F	35-50	50 - 65	Primary	Metric	M +		5	10	10 +
Skin	3	1	2	2	1	1		1	3	1	
Gynecologist	5	1	1	5	3	1	1	1			6

Psychologist	6	1	3	4	4	3			1	4	2
Eye specialist	2			2		1	1	1			2
Pediatrics	4		1	3	2	2	2	2		1	3
Orthopedic	6		4	2	2	2	2	3		1	5
General	3	1	2	2	1	2	3	1		1	3
Total	29	4	13	20	13	12	8	7	4	8	21

(Source: Field Survey, 2012-13)

Among the total number of the respondents of the traditional healers, 33 including 4 women are Magico- Religious practitioners. Most of the healers (20/64 %) are in the age group of 50-65 years, followed by (13/ 33%), who are comparatively younger in age (35-50 years) .All the Magico- Religious practitioners are literate. Among them, 13 have studied up to primary level, 14 are matriculate and 4 are at the educational level of above metric. According to their traditional healing profession out of 41 healers, 31 healers are specialists in treating different diseases, like Skin(4 including 1 female), Gynecologist(4 including 2 females), Psychiatric(6 including 1 female), Eye Specialist(2, one male and 1 female), Pediatrics (4 including 1 female), Orthopedic (9 including 1 female) and the remaining 10 are general healers without any specialization, but have knowledge to treat several diseases. Among 41 traditional healers, only 15 healers are trained by their local Gurus, but more than double their numbers, i.e. 26 healers are in the healing job without receiving any training. While the highest number of healers (10) is practicing general medicine, the lowest number (2) is found as Eye specialist. All the healers have gained experiences in traditional treatments, which vary from 5 to 10+ years and the highest number of experienced tribal healer is an orthopedic specialist.

The socio-economic profiles of individual ST magico-religious practitioners indicating their gender, age, qualifications, experiences and specializations are furnished in the following Table 6.3.1.

Table: 6.3.1 Profiles of Magico-Religious Healers as per Specialization: (N = 33)

Name, Address &Community Of Magico-Religious Leaders	Male/ female	Age	Experience (Years)	Type of Treatment Modern or traditional	Specialization
--	--------------	-----	--------------------	---	----------------

Dhanajay, Dehury, Mayurbhanj, Santala	Male	48	7	Traditional	Psychologist
Gaotam Dehury Mayurbhanj, Santala	Male	56	12	Traditional	Orthopedic
Suresh Chandra Majhi, Mayurbhanj,Hill Khadia	Male	53	15	Traditional	Pediatrics
Manaranjan Majhi, Mayurbhanj,Hill Khadia	Male	51	9	Traditional	General
Sarita Dehury Balasore,Bhumija	Male	55	21	Traditional	Skin Specialist
Banideepa Dehury Balasore,Bhumija	Female	54	8	Traditional	Psychologist
Rasi Behera Angul,Paudi Bhuya	Male	46	17	Traditional	Orthopedic
Harihar Julund10i Angul, Paudi Bhuya	Male	47	19	Traditional	Orthopedic
Arjun Madhi Malkangiri,Koya	Male	44	11	Traditional	General
Rima Burda Malkangiri,Koya	Male	48	14	Traditional	Psychologist
Boda Muduli Malkangiri,Bonda	Male	56	9	Traditional	Orthopedic
Soma Kirsani Malkangiri,Bonda	Male	53	12	Traditional	Pediatrics
Ghenua Pujari Nabarangpur,Gonda	Female	51	15	Traditional	General
Bishal Pujari Nabarangpur, Gonda	Male	55	8	Traditional	Skin Specialist
Naina Munda Gudia, Nabarangpur,Gonda	Male	54	5	Traditional	Psychologist
Budu Guntha Nabarangpur, Gonda	Male	46	24	Traditional	Orthopedic
Kishore Raita Gajapati, Lanjia Saura	Male	47	12	Traditional	Orthopedic
Nari Raita Gajapati,Lanjia Saura	Male	44	15	Traditional	General
Prafula Buda Sambalpur,Kisan	Male	48	5	Traditional	Skin Specialist
Ganesh Kanhar Kandhamal,Desia Kandha	Female	56	11	Traditional	Gynecologist
Amulya Kanhar Kandhamal, Desia Kandha	Male	53	9	Traditional	Psychologist
Ramach Tappo Sundargarh, Oram	Male	51	17	Traditional	Gynecologist
Budhe Oram Sundargarh, Oram	Male	55	15	Traditional	Eye specialist

Bidesi Mallick Nuapada, Chuktia Bhumija	Male	54	22	Traditional	Gynecologist
Maneswar Barik Nuapada, Chuktia Bhumija	Male	46	8	Traditional	Pediatrics
Suka Juanga Keonjhar, Munda	Male	47	8	Traditional	Psychologist
Arjun Juanga Keonjhar, Munda	Female	44	5	Traditional	Skin Specialist
Jitru Dharua Keonjhar, Juang	Male	48	19	Traditional	Gynecologist
Kamal Sai Keonjhar, Juang	Male	56	14	Traditional	Psychologist
Tapan Kissan Koraput, Gadba	Male	53	13	Traditional	Gynecologist
Raysingh Mallick Koraput, Gadba	Male	51	11	Traditional	Eye specialist
Ghasi Munda Koraput, Dharua	Male	55	12	Traditional	Gynecologist
Gumati Luhura Koraput, Dharua	Male	54	11	Traditional	Pediatrics

(Source: Field Survey, 2012-13)

From the primary data we found 32 tribal healers out of which 4 are females, highest number of tribal healers found in Gond tribe of Nawarangapur and their number are 3. Every Magico Religious Leaders practicing the traditional method but their specializations are different. The Magico Religious Leaders are specialized in skin, gynaecology, general medicine, orthopedic, eye specialist and psychologist. The highest number of psychologist are found and their number are 7 and the lowest eye specialist are found and their number are 2. Our investigated teams found the educational qualification of every tribal healer are under metric. The experience of tribal healers varies from minimum of 5 years to maximum of 24 years.

Table: 6.4 Profiles of patients of Magico-religious healers with their diseases and treatment received: N =146

Diseases of Patients undergone Treatments	Gender			Age Grade		Educational Qualification				Duration of treatment		
	M	F	T	Child	Adult	Illiterate	Pr.	Mc	M+	1	2	2+
Skin Disease	8	7	15	3	12	3	5	4	3	1	2	12
Common cold	12	9	21	5	16	7	4	8	2	4	7	10

Fever	6	11	17	1	16	4	5	4	4	3	1	13
Diarrhea	12	5	17	1	16	3	6	6	2	1	6	10
Allergy	4	9	13	2	11	2	4	5	2	2	2	9
Intestinal Disorder	8	6	14	1	13	3	6	3	2	2	5	7
Jaundice	5	12	17	2	15	5	3	4	5	2	5	10
Others	15	17	32	2	30	16	7	5	4	5	8	19
Total	70	76	146	17	129	43	40	39	24	20	36	90

(Source: Field Survey, 2012-13)

Table 6.4 shows that out of 146 total numbers of patients, 70 are male and 76 are female. Among the patients there are 17 Children and 129 adults. Regarding their educational qualifications 43(30%) are non-literate, (40/33%) studied up to Primary level, (39/29%) metric and (24/15%) above metric. The duration of sufferings and treatments received is less than one year in cases of (20/ 13%), it is (36/27%) and (90/62%) in cases of treatments for within two years and more than two years.

Table: 6.4.1 Profiles of patients of Magico-religious healers with their diseases and treatment received: N =134

Name, Address And Community Of Patients	Male/ Female	Age	Disease	Type of treatment Modern or rational	Duration of treatment
Suniyamurmu, Mayurbhanj Santala	Female	45	Jaundice	Traditional	1 Year
Mayurbhanj, MahalaSoren Santala	Female	68	Jaundice	Traditional	2 Months
Mayurbhanj, MaheswarBindhani Santala	Male	55	Jaundice	Traditional	6 Months
Mayurbhanj,RajuBindhani Santala	Male	49	Jaundice	Traditional	3 Years
Mayurbhanj,Ram Chandratudu Santala	Male	48	Jaundice	Traditional	5 Months
Mayurbhanj,Baneswar Dehury Hill Kharia	Male	68	Common Cold	Traditional	3 Months
HaladharNaik Mayurbhanj,Hill Kharia	Male	55	Fever	Traditional	7 Montha

CansiryDehury Mayurbhanj,Hill Kharia	Female	60	Malaria	Traditional	2 Years
KajalDehury Mayurbhanj,Hill Kharia	Female	13	Typhoid	Traditional	9 Months
Mayurbhanj,Iswartudu Hill Kharia	Male	48	Measles	Traditional	5 Years
KhagendragagaRai Mayurbhanj,Hill Kharia	Male	35	Diarrhea	Traditional	6 Months
DhaneswarDehury Mayurbhanj,Hill Kharia	Male	50	Allergy	Traditional	8 Months
DaitarybadaNayak Koraput,Dharua	Male	50	Intestinal disorder	Traditional	11 Months
Damarupangi Koraput,Dharua	Male	25	Jaundice	Traditional	1 Months
LabaDara Koraput,Dharua	Male	62	Skin disease	Traditional	9 Months
SriramMunda Keonjhar,Juang	Male	25	Jaundice	Traditional	11 Months
GolekhDehuri Keonjhar,Juang	Male	37	Jaundice	Traditional	3 Years
SurendraGiri Keonjhar,Juang	Male	50	Eye disease	Traditional	6 Months
Baidharnaik Keonjhar,Juang	Male	35	Jaundice	Traditional	
Bhagabaivpatra Keonjhar,Juang	Male	58	Skin disease	Traditional	1 Year
Desajuanga Keonjhar,Juang	Male	36	Jaundice	Traditional	2 Months
Damurudharthakura Keonjhar,Juang	Male	22	Eye disease	Traditional	6 Months
Kusumipradhan Keonjhar,Juang	Female	13	Jaundice	Traditional	3 Years
Barunapradhan Keonjhar,Juang	Male	60	Malaria	Traditional	5 Months
Jirajuanga Keonjhar,Juang	Female	62	Skin disease	Traditional	3 Months
ChaitanyaJuang Keonjhar,Juang	Male	30	Malaria	Traditional	7 Month
,AndhariJuang Keonjhar Juang	Female	55	Eye disease	Traditional	2 Years
SuraniPradhan Keonjhar,Juang	Female	25	Jaundice	Traditional	9 Months
GopalfaDukar Keonjar,Juang	Male	45	Jaundice	Traditional	5 Years
SabitriBehera Keonjhar,Juang	Female	30	Eye disease	Traditional	6 Months

GhaSikara Koraput,Gadaba	Male	35	Common Cold	Traditional	8 Months
RaghuMuduli Koraput,Gadaba	Male	30	Jaundice	Traditional	11 Months
ArjuNamuduli Koraput,Gadaba	Male	28	Skin disease	Traditional	1 Months
DaMukila Koraput,Gadaba	Male	25	Eye disease	Traditional	9 Months
BatiSisa Koraput,Gadaba	Female	20	Measles	Traditional	1 Year
PitamSisa Koraput,Gadaba	Male	25	Measles	Traditional	2 Months
MuliaMuduli Koraput,Gadaba	Male	55	Common Cold	Traditional	6 Months
JogiBarik Nuapada,Chuktia Bhunija	Male	18	Fever	Traditional	3 Years
MokarujHankar Nuapada,Chuktia Bhunija	Male	28	Malaria	Traditional	5 Months
HensagarMallick Nuapada,Chuktia Bhunija	Male	28	Typhoid	Traditional	3 Months
RajuMallick Nuapada,Chuktia Bhunija	Male	12	Measles	Traditional	7 Months
SunitaMallick Nuapada,Chuktia Bhunija	Female	16	Diarrhea	Traditional	2 Years
KhymasagarBarik Nuapada,Chuktia Bhunija	Male	42	Allergy	Traditional	9 Months
ManashMallick Nuapada,Chuktia Bhunija	Male	19	Intestinal disorder	Traditional	5 Years
LaxmanMallick Nuapada,Chuktia Bhunija	Male	28	Jaundice	Traditional	6 Months
BideshiMallick Nuapada,Chuktia Bhunija	Male	38	Common Cold	Traditional	8 Months
Ramchandar Mallick Nuapada,Chuktia Bhunija	Male	30	Intestinal disorder	Traditional	11 Months
GhanasyamSamad Keonjhar,Munda	Male	25	Jaundice	Traditional	1 Months
BabanMunda Keonjhar,Munda	Male	22	Eye disease	Traditional	9 Months
MangalaMunda Keonjhar,Munda	Male	45	Common Cold	Traditional	11 Months
KandraMunda Keonjhar,Munda	Male	22	Jaundice	Traditional	3 Years
SabitaMunda Keonjhar,Munda	Female	28	Skin disease	Traditional	6 Months
RatanaMunda Keonjhar,Munda	Male	32	Jaundice	Traditional	2 Years

Keonjhar,JagatMunda Munda	Male	32	Jaundice	Traditional	9 Months
Gajapati,BinaBhuiian Lanjia Saura	Female	38	Skin disease	Traditional	5 Years
Gajapati,AsiaGaMango Lanjia Saura	Male	26	Skin disease	Traditional	6 Months
Gajapati,SuranGaraita Lanjia Saura	Male	38	Measles	Traditional	8 Months
Gajapati,MisbenMandal Lanjia Saura	Female	22	Common Cold	Traditional	11 Months
Gajapati,MegdelRaita Lanjia Saura	Female	38	Fever	Traditional	1 Months
Gajapati,TiganiMandal Lanjia Saura	Female	58	Malaria	Traditional	9 Months
Gajapati,DumaniBhuiian Lanjia Saura	Female	60	Typhoid	Traditional	11 Months
Gajapati,MojagaMango Lanjia Saura	Female	60	Measles	Traditional	3 Years
Gajapati,SunamGamango Lanjia Saura	Female	38	Diarrhea	Traditional	6 Months
Gajapati,KandariRaita Lanjia Saura	Female	60	Allergy	Traditional	11 Months
Sambalpur,NityanandaKisan Kisan	Male	42	Intestinal disorder	Traditional	1 Months
Sambalpur,SusilKisan Kisan	Male	35	Jaundice	Traditional	9 Months
Sambalpur,PurohitKisan Kisan	Male	32	Jaundice	Traditional	11 Months
Sambalpur,KusaKissan Kisan	Male	50	Skin disease	Traditional	3 Years
Sambalpur,SameshKissan Kisan	Male	16	Jaundice	Traditional	6 Months
Sambalpur,JugeshChhatria Kisan	Male	32	Intestinal disorder	Traditional	2 Years
Sambalpur,SureshBalua Kisan	Male	20	Common Cold	Traditional	9 Months
Sambalpur,Krushnachandra Kisan	Male	32	Fever	Traditional	5 Years
Sambalpur,ManasKalue Kisan	Male	16	Malaria	Traditional	6 Months
Sambalpur,Bank Kisan Kisan	Male	30	Typhoid	Traditional	8 Months
RadhamohanKanhar Kandhamal,Desia Kandha	Male	20	Measles	Traditional	11 Months

Susantkanhar Kandhamal,Desia Kandha	Male	5	Diarrhea	Traditional	11 Months
Nimantikanhar Kandhamal,Desia Kandha	Male	20	Allergy	Traditional	1 Months
Kuberkanhar Kandhamal,Desia Kandha	Female	4	Intestinal disorder	Traditional	9 Months
NrusinghKanhar Kandhamal,Desia Kandha	Male	4	Jaundice	Traditional	11 Months
Kandhamal,JibanKanhar Desia Kandha	Male	20	Jaundice	Traditional	3 Years
Kandhamal,RashabKanhar Desia Kandha	Male	14	Skin disease	Traditional	6 Months
Kandhamal,SugribaKanhar Desia Kandha	Male	16	Intestinal disorder	Traditional	2 Years
Kandhamal,PravatKanhar Desia Kandha	Male	10	Jaundice	Traditional	9 Months
Kandhamal,MaheshKanhar Desia Kandha	Male	44	Common Cold	Traditional	5 Years
Sundargarh,MangalOram Oraon	Male	59	Skin disease	Traditional	6 Months
Sundargarh,BimalprasadK erketta Oraon	Male	59	Common Cold	Traditional	8 Months
Sundargarh,GurubariKhadi a Oraon	Male	62	Fever	Traditional	11 Months
Sundargarh,Jasminieka Oraon	Female	60	Malaria	Traditional	6 Months
Sundargarh,Ramiakerkata Oraon	Female	45	Typhoid	Traditional	2 Years
Sundargarh,,Sujatatirky Oraon	Female	14	Measles	Traditional	9 Months
Sundargarh,FagniKujur Oram	Female	65	Diarrhea	Traditional	5 Years
Sundargarh,SabiKujur Oram	Female	40	Allergy	Traditional	6 Months
Sundargarh,MangalOram Oram	Male	59	Intestinal disorder	Traditional	8 Months
Malkangiri,HadikirSani Bonda	Male	24	Jaundice	Traditional	11 Months
Malkangiri,MamatakirSani Bonda	Female	19	Skin disease	Traditional	6 Months
SambharikirSani Malkangiri,Bonda	Female	40	Jaundice	Traditional	8 Months
LaxmanMuduli Malkangiri,Bonda	Male	15	Jaundice	Traditional	6 Months

SanyakirSani Malkangiri,Bonda	Male	60	Jaundice	Traditional	8 Months
Malkangiri,AdibarikirSani Bonda	Female	30	Skin disease	Traditional	11 Months
GurubarikirSani Malkangiri,Bonda	Female	26	Jaundice	Traditional	6 Months
Malkangiri,Sambhari Muduli,Bonda	Female	62	Intestinal disorder	Traditional	2 Years
SantiKirSani Malkangiri,Bonda	Female	27	Skin disease	Traditional	11 Months
Raja Muduli Malkangiri,Bonda	Male	29	Jaundice	Traditional	1 Months
Nabarangpur,Chanduraj Gond Gond	Male	37	Jaundice	Traditional	9 Months
BiswanathPujari Nabarangpur,Gond	Male	40	Common Cold	Traditional	11 Months
Nabarangpur,RabiMali Gond	Male	35	Jaundice	Traditional	3 Years
Nabarangpur,RamdasGond Gond	Male	40	Jaundice	Traditional	6 Months
Nabarangpur,Gonchuram Pujari Gond	Male	28	Common Cold	Traditional	2 Years
Nabarangpur,LaxmiGond Gond	Female	35	Fever	Traditional	9 Months
Nabarangpur,GinarajGond Gond	Female	40	Malaria	Traditional	5 Years
Nabarangpur,SakaramMali Gond	Male	63	Typhoid	Traditional	6 Months
Nabarangpur,FagnuMali Gond	Male	40	Measles	Traditional	8 Months
Nabarangpur,Chawchala Ray Gond Gond	Female	32	Diarrhea	Traditional	11 Months
Nabarangpur,Chanduraj Gond Gond	Male	37	Allergy	Traditional	11 Months
Angu, BaisakhobEhera Chuktia Bhunjia	Female	33	Intestinal disorder	Traditional	3 Years
Angul,RasiBehera Chuktia Bhunjia	Male	63	Jaundice	Traditional	6 years
Angul,Akhila Chuktia Bhunjia	Male	38	Intestinal disorder	Traditional	3 years
Angul,,BamudiaThakur Chuktia Bhunjia	Male	45	Common Cold	Traditional	11 Months

Angul,Chakra Pradhan Chuktia Bhunjia	Female	50	Jaundice	Traditional	1 Months
Angul,Baisakudhangad Chuktia Bhunjia	Female	25	Skin disease	Traditional	9 Months
Angul,KanduruGiri Chuktia Bhunjia	Female	28	Jaundice	Traditional	11 Months
Angul,JhaduBehera Chuktia Bhunjia	Male	30	Skin disease	Traditional	3 Years
Balasore,Geeta Bhumij	Female	33	Jaundice	Traditional	6 Months
Malkangiri,SanakaBasi Koya	Male	25	Intestinal disorder	Traditional	2 Years
Malkangiri,MukabaRass Koya	Male	38	Intestinal disorder	Traditional	9 Months
Malkangiri,Sukramadkami Koya	Female	30	Jaundice	Traditional	5 Years
Malkangiri,Mala Madkami Koya	Female	20	Jaundice	Traditional	6 Months
Malkangiri,KosapaDiami Koya	Male	45	Common Cold	Traditional	8 Months
Malkangiri,ErmepaDiami Koya	Female	32		Traditional	11 Months
Malkangiri,DebamaDkami Koya	Male	45	Jaundice	Traditional	4 Months
Malkangiri,GangePadiami Koya	Female	50	Diarrhea	Traditional	3 Months
Malkangiri,PadiaPadiami Koya	Female	30	Common Cold	Traditional	5 Years

(Source: Field Survey, 2012-13)

6.3 Analysis of qualitative data on Perception & Belief System about cause and diagnosis of diseases:

Data on the cultural dimension of ill health and the cure of diseases was gathered from a select of two STs (Santal and Koya) and two PTGs (Bonda and Saora) of Odisha. Their perception and belief system about cause and diagnosis of diseases are discussed in the following lines.

6.3.1 Santal (ST):

Among Santhals the traditional medicine practitioner is known as Ojha. According to their practice of the process of diagnosis of diseases among the patients, the 'Ojha' diagnoses the

ailment with the help of two Sal (local name) leaves. He chants mantras and rubs oil on the patient and then sprinkles vermilion on his body. Then he peruse into the leaves. It is believed that the healer can see the cause then read the procedure to cure the disease by reading into the leaves. Accordingly, he proceeds with his treatment. If he finds that the person is possessed by an evil spirit, then the treatment is tried to be cured by mantras only. If the patient is not suffering from spirit then Ojha prescribes herbal medicines. The medicines prescribed by the “Ojha” are of two types (i) for external use such as pastes, oil, medicated water for bath or washing, (ii) for internal use, mixtures and pills.

From the present investigation it is revealed that on an average about 45 percent santal people have no specific idea about the causes of all the first four diseases under study. In case of jaundice they have some ideas. To them the change of weather is a major cause of fever, cold and cough and malnutrition and drinking polluted water is the leading case of diarrhea. More than half of them in study villages said that aundice was caused by the effect of bad spirit. That is why most of the patients sought treatment of traditional healers instead of modern medicine. The ill effect of bad work done in the past was also perceived as one of the causes of different diseases. The affect of bad spirit worked throughout all the disease as one the causes. It is thus believed that the deities and spirits play an immresive role in controlling the health system among Santhals.

Further, at times it is belived that modern medicine becomes workable and effective, if it is taken alongwith offering Puja to the village deity with the help of priest-cum- traditional healer. The cause of malaria is now-a-days perceived by most of the tribals due to mosquito bite. The Santal people, both men and women, used to drink handia, country liquor. Nearly 75 percent people found drinking country liquor. It is believed that drinking country liquor gives required energy to the persons to work in the fields. Handia is very common at the time of rituals. Santhals has been using handia as an offering to their gods during rituals and at that time every member of the village used to takes handia. The traditional healers are of opinion that handia acts like a medicine for the patients. It helps keep the stomach in a fine condition. At the time of fever taking handia serves as the medicine for speedy recovery.

6.3.2 Koya (ST)

The Koya magico religious and ethno medicinal specialist is known as Wadde, who may be a man or a woman. He/she diagnoses and treats diseases. There is a hierarchical gradation amongst the wadde. The junior is known as Roto Wadde, the intermediate specialist is called Sira Wadde and the senior one is called as Berry Wadde.

The Koyas believe that diseases, miseries and sufferings are caused by the action of supernatural agents. The Koya people long suffering from diseases over a period of time usually take recourse to magico-religious diagnostic and curative practices. If no effect is noticed then they try to change their residence from one site to another to get rid of the evil influence of malevolent supernatural. The Koya patients reveal the symptoms of their diseases to the Wadd, who makes diagnosis of the diseases and prescribes medicine and/or magical treatment. This knowledge of medicines and mantras are kept secret because the practitioner thinks that his medicines will not be efficactive if secrecy broken. In practice a Koya learns the art from his father and this way, the techniques of treatment are transmitted from one generation to the other. The Koyas suffering – from smallpox, chicken pox and measles are exclusively treated by the respective goddesses who cause such diseases. Diseased persons are kept aloof from other members of their families till they are cured. In such cases some taboos are observed in the village. During this period drums beating and dancing and singing by women are completely forbidden. Wounds, cuts and fractures caused by the accidents, attack of bears, leopards and tigers are simply treated and cured with the application of herbal medicine.

The Koyas strongly believe that some gods and deities are kind and benevolent to the mankind, plant and animal kingdom. They are displeased when human beings commit wrong or sinful deeds which go against the human society. The misfortunes and calamities are caused by the wrath of the Gods. As for example, due to this belief no Koya individual dares to eat new fruits or crops is ceremonially offered to the Gods, village deities and the ancestral spirits. If anyone breaches this rule, the village community jumps into take corrective action by imposing fine upon the errantas and then arrange worshipping the deity to avoid the dangers of calamities to follow the anger of the supernatural beings. On the other hand such beliefs and practices ensure social discipline and conformity to the community norms. Reversely, the ghosts and spirits are considered as malevolent to the human beings. They live in the winds, trees, water and

hills waiting for an opportunity to cause harm to the mortals. The deity causing small pox and the spirits called Tania and Mata belong to this group. The village witch-doctor called Wadde deals with these harmful spirits and tries to satisfy them. He brings some of the spirit under his control by conducting magico-religious rituals and utilizes them to achieve his ends.

In Koya society, Magic and religion are complementary to each other. The Koyas worship their Gods and appease them and get their blessings. When this worship fails to bring them any result they resort to magical practices with the help of Wadda. Wadde is called upon to perform magical rites to cure diseases, effect smooth delivery of a child and ward off the calamities and epidemic.

6.3.3 Saora/Lanjia Sara (PTG):

Among the Saora the traditional healers, who are called Kudan (Male) and Kudanboi (female). They play a great role in curing all types of illness and diseases. They are both magico-religious experts and medicine men. There are also exclusive medicine specialists who are only men. They play a critical role in sustaining and upgrading their age-old and deep rooted health care system.

The Saoras do not conceive of any cause of illness other than the machination of evil spirits. When illness happens, it is the shaman's chief function to determine which god or ancestor is dissatisfied and the kind of animals required to be sacrificed in order that they might be conciliated.

Every shaman has a female tutelary and every shamanin has a male tutelary. The relationship between these two sets of pairs is same as that of husband and wife. A shamanin is supposed to have sexual relationship with the male tutelary and have children born to her out of the union. She is supposed to feed her breast these children who live in other world.

The traditional healer uses natural resources like plants, flowers, seeds, animals and other naturally available substances, which form the major basis of treatment. This practice is at times supplemented with a touch of mysticism, supernatural and magic associated with specific magico-religious rites. The traditional healers have a deep knowledge of the health cure system.

People trust them as capable of providing quality health to their community. In an attempt to go on a mission into the unseen world, the shaman, in trance, with his eyes half closed and fists clenched tries to establish a direct link with the god or spirit who is responsible for causing the misery. In this mission the assistance of the spirit wife is also taken to find out the right deity. When finally the shaman is shaken with convulsions, it means that the god responsible for causing the illness has revealed himself. The god then makes his wishes known using the shaman as his medium. The animals demanded are then brought and sacrificed and other offerings made. During the treatment of illness, in most cases a single pair of sacrifices is not enough to satisfy the ravenous appetites of the gods and ancestors. As the illness takes its natural course and fever intensifies, the shaman is called in again and there are further sacrifices of animals which are costlier than those sacrificed in the first instance.

6.3.4 Bonda:

By nature the traditional medicines practiced by all most all PTGs are more medicinal and less dietetic, more curative and less preventive. The Bondo medicine is not different from the medicine of any PTGs. The plants used by the Bondo for medicine are never cultured but collected from nature. Very few medicines used by Bondo are of animal origin. It is curative in nature and almost free from food and other restrictions. The ‘Guru’ use Mantras, the Disari both Aushadha and Mantra and the medicine men only the Aushadha. Though not systematized, the Bondo indigenous medicine is diagnostic and is confined to only one concept, i.e. healing the patients from diseases.

They have their own concepts about the causation of diseases. Most of the sufferings are ascribed to the wrath of the supernatural powers, witchcraft and sorcery. They believe that persons who do not follow the customary usages and those who break taboos and ignore and neglect their supernatural powers are bound to suffer from various diseases.

The Bondos believe that plants or some parts of it with strong or sweet smell, emitting resinous fluid or latex when hurt and producing white as well as striking adored smoke on burning have medicinal properties. The ritual medicine men also consider that a tree struck by

lightning or having a luxuriant growth with good foliage, despite hostile natural conditions, acquires medicinal properties naturally. They also believe that any biological species with striking deviation in appearance, colour, foliage, etc., from among their general counterparts can be used as a medicine. The potency of the freshly prepared medicine decreases on storage, they believe. Some of the traditional medicine men believe that the medicine become ineffective if its ingredients are made public. So they maintain secrecy in selection of medicinal plants and in preparation of medicine. A Bondo patient never uses prepared and stored medicines for long time for it is believed that the medicine may not work properly.

The medicines are prepared by pressing, grinding, decanting, incinerating and filtering of medicinal ingredients. Most of the Bondo medicines are water based and some of the medicines used externally are oil based. The Bondo are keen to alcoholics but, the alcohol is not used in any form of their medicine. The usual tools/ gears used by a Bondo medicine man consist of a knife, a digging stick and the grinding stone usually made of fine grained stone such as chloride stone or granite. The traditional medicine men have gourd shell containers to store dried roots, barks, seeds and fruits with medicinal properties. The simplicity of the medicine can be judged by the fact that the so called oil based medicines contain no oil at all. On the contrary the affected area is massaged with oil and then the medicinal extract is applied there upon. No orally administered medicine has oil or essential oil in it. Bondo medicine is the absence of any side effect on the patient. If the advice of the medicine man is strictly followed, a Bondo believes, the patient gets cured. If he doubts about the medicine or if he has done any offence against deities the medicine fails. The Bondo believes that the diseases are either superficial or deep. They too believe that external administration of medicine is for superficial diseases and internal administration for grave or deep ailments. This belief system has led the Bondo medicine man to resort to a kind of surgery i.e., inflicting a minor wound above the bone fracture and filling it with the paste of 'adsang'.

The curing practices of the Bondo medicine men vary from each to other. The Gurus hardly clean their hands before attending to the patients. They chant mantras-a-chain of words in poetic rhythm, nodding their heads and waving hands towards abode of village, forest, hill and stream deities and even towards the Sun occasionally clapping and raising the pitch to high or low tone. During the process they use vermilion and incense sticks. They also draw lines on soft

soil or sand in front of the house of the patient. After the completion of the ritual some Gurus touches the offering items to the patients. Others take out a little earth from the pooja site and apply on the body of the patient. The Gurus also promise offerings like black buck, black cock and cocoanuts to the malevolent spirits on behalf of the patients. The practice of exorcism does occur among the Bondo. The Gurus are also good exorcists. They usually treat patients suffering from small pox, chicken pox, high fever, loss of body weight associated with weakness, etc. These diseases according to them are due to the wrath of deities and unsatisfied ancestral spirits.

The Dissari usually take care of seasonal and endemic diseases and body disorders caused by visible agents. When a person faces accidents repeatedly or in cyclic order the Dissari applies some herbal medicines but to boost the moral of the patient he performs some rituals too. These rituals may not have any clinical effect but boost confidence and build up the will to survive. They combine the use of medicinal herbs and other substances with exorcism to cure diseases. It is also learnt that like the Ojhas, the Dissaris do not have any specially sponsored bongas (spirits) through which the forces of evil and sorceries are countered.

If the delivery is delayed the women is given hot rice gruel to drink and in case of difficult labour the Dishari is immediately called in to propitiate the evil spirits for smooth delivery. A paste prepared from turmeric and leaves of wild creeper called siuta is applied on the naval stump to check bleeding and help in healing. Whenever the preliminary treatment is found ineffective and illness prolongs or when a person suffers from a complicated disease, they believe it to be caused by some supernatural power. In such cases they consult with their traditional astrologer-cum-medicine man (Dishri) or the shaman (Gurumai). The former examines the pulse, eyes and affected part of the patient's body to ascertain if it is caused by natural factors or by a supernatural power. If it is due to any natural cause he prescribes herbal medicine and gives advice to observe certain restrictions and taboos. The consumption of stale meat, in case of patients suffering from skin diseases is tabooed.

If it is due to the machination of some evil spirits he detects the agency responsible for the suffering by a grain divination method and performs the appropriate rites which include offering of sacrificial animals to appease his guardian spirit and the spirit which brought the sufferings.

The shaman does not prescribe any medicine but treats the patient by magico-religious rites in a different way. He goes into trance and along with his assistants who will be waving bundles of peacock feathers and chanting magical spells in a group dance to the beat of the drums and carry on conversation with this guardian spirit to find out the cause of the suffering and its remedy. If an ailment is caused by a sorcerer or by witchcraft, the shaman tries to cure the patient by cutting the person responsible for it into various troubles by adopting magico-procedures. If all such treatments fail the patient is destined to die as a punishment accorded by supernatural power for his or her unforgivable sin. The treatment by the shaman or the medicine man is very expensive as this involves offering of sacrificial animals and other ritual objects besides the payment of remuneration to the shaman or the medicine man which ranges from Rs.51/- to Rs.200/- or so.

A close observation of the 'Gurus' and the 'Dissaris' in action leads one to infer that the success of healing of magic-man lies on its valuable psychological functions and on its social acceptance. The so called elite medicine men of the tribe have a good knowledge about the material medica in vogue among them. They are the real force behind the addition of the newer medicinal ingredients to their existing list. It is felt that supportive efforts to them, by Government, will make them able to transfer the spiritual medicine to physical medicine. They have little room for preventive medicines. They believe that efficacy of a treatment depends largely upon the belief of the patients on their modus operandi. Provision of medical facilities has created a great deal of interest among them in modern curative and preventive practices.

6.4 Case Studies on Healers and Patients:

As usual practice the tribal healers hesitate or express their unlike to share the traditional healing practice and details of the healing touch. However, attempts were made by the researchers to collect data on the tribal healing touch and the associated system of magical treatment and practices. With much persuasion scanty data on the practice and issues were collected. During the field investigation a total of 13 case studies of tribal traditional healers and their patients from different tribes and PTGs were collected and these are placed in the following lines. At the end of the discussion of the case studies, an inventory of the tribal traditional healing practice and a list of their medicinal herbs and plants along with their photos have been furnished at Annexure- III & IV.

Case Study- 1**Name of Healer: Bhudua Oran****Tribe: Oran****Village: Balisankara****District: Sundargarh****Specialization: Arthritics, Cancer, Piles, Headaches and Joint pain**

A 70 years old renowned healer from village Balisankara, near Bhatipada of District Sundargarh. He has education up to primary and could not able to read and write English properly. He is specialized with treatment for Arthritics, Cancer, Piles, Headaches and Joint pain. Patients from nearby villages come to him on all days even in the late nights. He is very famous for the treatment of arthritis patients, when one patient turns for treatment, he tests urine of patients with Til oil and confirm to know the problem of arthritics. Usually when the patients suffering from arthritics were given medicine for for 1 month and 3 months for treatment with piles. He prepared medicine powder from plants. He claims that 80 types of parts of trees required for preparation of medicine for arthritics. He purchases half of medicinal plant from Sambalpur market and rest was collected from forest. He dry the herbs, make it powder and them provides to patients.

He learnt the art of healing when he was 25 years old from his guru. His father was ill. He went to Dharanadihi village to learn from his Guru. He stayed there for 6 months and stay here to treat the patients. He says now parts of medicinal plants are higher and not available in nearby forest. He asks the patients not to take tamarind and mango while consuming medicine. His disciple Nandaraj Kujur is practicing from Budhua and helps him in preparing medicines. One patient in nearby village Damget Lakra, 27 years old, got cured from arthritis recently. He says it as a simple method of treatment and low cost. Another patient Kalpana Tirki, age 45 years old says she was suffering from piles, after consuming medicines of Budhua for 3 months, now she is fine. He charges Rs. 500/- for treatment of arthritics.

Case Study - 2

Name of Healer: Ramachandra
Murmu
Tribe: Santal
Village: Rangadihi
District: Mayurbhanj
Specialisation: Fractures



He is a specialist in bone settings. He has been treating tribal people of his own tribes and others since last 25 years, in the tribal dominated Badasahi block area in Mayurbhanj District. His village Rangadihi is known for Hada Bhanha treatment in that area. Patients from nearly Rajgibirdpur and Dhemasahi (West Bengal) visit the village for a cheaper and traditional healing treatment. Suresh examines the broken part of the limb and set the bones by tying bamboo pieces and bandage it. The bandage is made of old sarees/Dhotis, after applying medicinal pastes made from herbs. He collects medicinal plants from Similipal Biosphere Reserve forest. He was of opinion that medicinal plants are not available in near forest; we have to do hard labour to go to deep forest to collect the materials. After collecting the roots and other parts of the trees, it is made to pieces and then powdered. His wife Salma Dehuri helps him in preparing the powder. Then the powder is mixed with Ghee made from Cow milk. He gives 21 tablets for 7 days for administration.

He learnt this from his uncle Mangal Majhi. Once his hand was fractured when he was 25-26 years old. He stayed with his uncle for 1month and learnt the art of treatment of fractures of bone. Patients from 40km radius comes to him for treatment of diseases. He claims he has cured thousands of patients. Tribal and poor people from other communities come to him for treatment of bones fractures and dog bite. After the treatment Suresh dose not demand any things from the patients. The patients whatever they want and can, pay to him. Now his son Gyana Ranjan learns the art of treatment from him. A poor destitute woman with broken leg from Badasahi village came in a trolley rickshaw and got cured by his treatment.

Case Study - 3

Name of Healer: Suresh Khillar
Tribe: Hill Khadia
Village: Guabehera
District: Mayurbhanj
Specialisation: Madness and Fever



Guru Suresh Makhi, aged 35yrs is a Youth of Guabehera Village in Myurbhanj district. He treats diseases related to madness, fever, wound on Monday and Thursday mornings. People from near village come with coconut, banana, sindur, leaves from bel tree. He offers puja to Lord Siva. Sunaram Says people comes to get relieve from family problems, and to get employment. Patients offer puja and then Sunaram advices them to go to doctors to get medicines. Then the patient get cured. Sunaram says after the patients perform puja, the doctor medicos give a result and the patients get cured. Sunaram gives leaves of Gangasiuli locally collected Singur for treatment of pain and burn in hand and legs after performing puja. Sunaram says his treatment practice from the years 2002 when he and his wife were cured from Tuberculosis (TB).

He says he surrendered himself before God shiva and got the divine power. He becomes 'Dasi' and instructs patients on behalf of god. The act is performed Monday only. He claims patients come from nearby villages on Monday and Thursday for treatment and after Monday as per their capacity and wishes. He does not ask for money to them. They after whatever they want. His wife Sankara helps him in preparing puja and treatments patients. Mr. Bhagabat Majhi from village Haladipada says he had an wound in leg. He said that he got cured by Suresh's treatment. The wound cannot get cured after consuming medicines from Betanati Hospitals for months. He comes to Suresh, for 2 times and got cured.

Case Study - 4

Name of Healer: Hadu Dehuri
Tribe: Bhumij
Village: Patrajhada
District: Balasore
Specialization: Intestinal pain & Child problem



Hadu Dehuri of Bhumij tribe is a 45 years old, literate man, from village Patrajhada, Bhatipada, in Balasore District. He has only daughter Basanti who is married. Hadu says he learnt the art of treatment in the night when his daughter was born. He treats patients with fever, body aches, and issueless couple. He performs puja on Monday with rice, coconut, aggravate. He has set a temple inside his home. After performing puja, he treats patients. Sugrib says that patients from nearby villages and even from neighbor villages of Jharkhand came to him on every Monday. Five to seven patients comes to him daily for treatment and advice. He does not ask the patients for any cash or kind. People offer him according to their wish. He has 5 acre of land and rest time he engages himself in agriculture. People places coconut after performing the puja. When their wishes are fulfilled, they come and offer money to him. He treats barren patients with herbal medicines. In this case patients take 1 month medicine with jossy.

He treats patients with stomach pain by giving herbal medicine. He collects herbal medicine from nearby forest. Bui Ekka, age 45 years old from village Sargipali in Balaore district says she was suffering from madness for 3 to 4 days. After receiving treatment from Sugrib she gets cured. She came to him 3 times for treatment. Dukhama Beg, age 45 years from village Jhamia says he was got cured even after consulting medicines from doctors. After receiving treatment from Sugrib he is fine. Hadu says he cannot move any disciple as he got the art of God Shiva. The Mantra is given by the God.

Case Study - 5

Name of Healer: Sunaram Mardi

Tribe: Paudi Bhuiya

Village: Jamardihi

District: Angul

Specialization: Fever and Diarrhea



A small village near Guni *nala* in the Palaharaa block of Angul district. The village is thinly populated with STs and only one household of general caste. The village is within dense forest having only Kaccha road. The village is 7 kms away from the main road. Sunaram (popularly called Suna) has studied up to class VII and recognized as a popular medicine man in the nearby villages. Suna works day and night, travel to forest and nearby town to get medicines for the villagers. Suna is the only son of Dullaram with 7 sisters. Suna is unmarried and considered as a sacred priest in the local temple.

In a normal day he treats around five to six patients, the main diseases prevalent in the locality is fever and Diarrhea. The diseases are mostly treated by Dubaghasa leaves juice with sugar candy, which is prescribed to small kids to get cure from diseases, like diarrhea and vomiting. Plant powder is taken with honey in the morning in empty stomach to cure bile. The medicine is taken by the water of the leaf by boiling it. Usually 700 to 1000 rupees is earned by Suna in a month. As per Suna new generation people are not interested in this treatment and raw materials are not available for use in the medicines. Sankansan Mahakud was having prolonged fever and his health was deteriorating. He was prescribed 10 doses of this medicine and suggested a prayer ritual offering to god and got cured.

Case Study- 6**Name of Healer: Sama Kirsani****Tribe:** Bonda**Village:** Mudulipada**District:** Malkangiri**Specialization:** Gynecologist

Sama Kirsani, a resident in a renowned Mudulipada village which is rich on natural resources and famous as a place of tourist interest. She manages a poor family with three sons. She is practicing the traditional medicine for her livelihood. Sama Dui calls by all in the area for all health problems and disorders. She lost her husband at early age. Prior to that she learnt the healing practices from her husband who was famous in the area. She is living with her three sons, who help her in the treatment. Far from and nearby areas patients travel to her and with a gentle smile, she treat and assure recovery.

She is famous for the treatment of all Gynecological problems of female in that community. Whenever there is any problem she popularly prescribe the Ramdantuni Root, which is boiled in water. This water is given orally with honey to cure gastric problem and indigestion. 150 g fresh crushed root boiled with 200 ml mustard and messaged on affected part twice day for 4-5 days. Root used in gynecological disorder and brought from deep in the forest, dried for longer used. Looking at the cultural dominance of alcohol consumption she always prescribe to avoid spicy food and no alcohol in any ways. She charges only Rs. 100/- for treatment of major gynecological problems. She also belief in the local god and ask everybody to pray for the blessings to get cure. Sometimes poor families could not give any money so she also takes rice, dal, etc. from them. With this income she is happy and dedicated her life to the service of the community and maintaining her livelihood.

Case Study- 7**Name of Healer: Surma Bhujan****Tribe: Lanjia Saora****Village: Serango****District: Gajapati****Specialization: Piles, Fistula and Hernia**

Serango is a village with no access to basic amenities and facilities towards all Govt services. People of this community have to travel more than 3 kms to get bus to reach the nearest block and district. The village is thinly populated with Lanjia Saora and other ST communities. Surma a 65 year old person with magic in hand and belief on god works as healer and treat the community. He has five daughters, all are married but his younger daughter use to live with him and helps in all type of works. With the help of different Govt scheme he had got an IAY house. He is known as Baida of that area.

He learnt the art of healing when he was 25 years old from his guru. He says now cost of parts of medicinal plants is higher and not available in nearby forest. He is known as doctor of Piles and Hernia and treats these diseases very well with help of local herbs. By mixing together Acanthaceae 5 pieces of leaf paste with 2-3 pieces of roots of Abrus Precatorius and 3-4 pieces of roots Achyranthes Aspera is mixed and the grinded pasty mass taken twice a day after meal for twenty days as cure for the treatment of piles. Looking at the cultural dominance of alcohol consumption she always prescribe to avoid spicy food and no alcohol in any ways He charges only Rs. 100/- for treatment of major gynecological problems. She also belief in the local god and goddesses.

Case Study- 8

Name of Healer: Jhatia Pradhan

Tribe: Kisan

Village: Badapada

District: Sambalpur

Specialization: Diarrhea and Fever



A small village Badapada in the Sambalpur district near Jujumara dense forest. The village is thinly populated with STs with few households in general caste. The village is with in dense forest having only Kaccha road connectivity to main road for transportation. Jhatia Pradhan is the only 7th pass literate educated medicine man in the villages. Jhatia works day and night, travel to forest and nearly town to get medicines for the villagers. Jhatia is the only son of Prafulla with 5 sisters. Jhatia is married with three children aged between 10-15 yrs of age. His elder son is also learning this profession to help his father.

In a normal day he treats around five to ten patients, the main disease prevalent is fever and Diarrhea. The diseases are treated mostly by Phimpinia leaves juice with sugar candy, which is prescribed to small kids to cure diarrhea and vomiting. Plant powder is taken with honey in the morning in empty stomach to cure bile. Around 50ml leaves juice is prescribed to be taken orally thrice a day for three to four days to cure jaundice The medicine is taken by the water of the leaf by boiling it. Usually 700 to 1000 rupees is earned by Jhatia in a month. As per Suna new generation people are not interested in this treatment and raw materials are not available for use in the medicines. Sankansan Pradhan was having prolonged fever and was in worst health condition. He was prescribed with 10 doses for this medicine with pray offered to god and got cured.

Case Study- 9

Name of Healer: Kandhia Karhan

Tribe: Desia Kandha

Village: Sashipadar

District: Kandhamal

Specialisation: Jaundice and Skin diseases



Sashipadar village in Kandhamal district where many foreign tourist are visiting and rich on natural resources. A Poor family with three sons practicing the traditional medicine for the livelihood. Kandhia calls by all in those area for all problems and health disorders. He lost his father at early age while he was very small, learnt the healing practices from her Guru which is famous now in their area. With help of Govt got IAY scheme house and living with her three sons. Far from many nearby areas patients travel to her and with a gentle smile she treat and assure recovery.

She is famous for the treatment of all Skin problems of Male and female in that community. Whenever there is any problem he popularly prescribe the Banahaladi Root are boiled in water and this water is given orally with honey to cure problem. Banahaladi paste is applied on new born child to prevent all types of skin diseases and also applied to dry up the child naval (round of placenta) and cures other infections. A paste made with its Banahaladi and dudura leaves (datura metel) is applied on Brest swelling of women.. Looking at the cultural dominance of alcohol consumption she always prescribe to avoid spicy food and no alcohol in any ways He charges only Rs. 100/- for treatment of major skin problems. He also belief in the local god and ask everybody to pray for the blessings to get cure. Sometimes poor families could not give any money so he also take rice, dal etc from them.

Case Study- 10

Name of Healer: Harihar Mallik

Tribe: Chuktia Bhunjia

Village: Cherchuma

District: Nuapara

Specialisation: Intestinal problem and Hydrosil



Harihar Mallik of Cherchuma village with no access to basic amenities and facilities towards all Govt services. People of this community have to travel more than 3kms to get bus to reach the nearest block and district. The village is thinly populated with Chuktia Bhunjia and other ST communities. Harihar a 65yrs old person with magic in hand and belief on god works as healer and treat the community. He has five daughters, all are married but his younger daughter leaves with him and helps in all type of works. With the help of different Govt scheme he had on IAY house and known as Baida of that area.

He learnt the art of healing when he was 25 years old from his guru. His father was ill when he is 15 yrs old and died. He wants to Gunalli village to learn from his Guru and stayed there for more than 20 yrs. He says now warty part of medicinal plants are higher and not available in nearby forest. He asks the patients not to take tamarind and mango while consuming medicine. He use castor leaf is placed before live charcoal to make it wither. Castor oil is applied on it . it is then put on the swollen scrotum. He advice for surface application when the leaf dried and grounded to paste for application with linen cloth tightly bind on stomach. His disciple Ghasi Mallik is practicing from Budhua and helps him in preparing medicines. Kalpana Tirki, age 45 years old says she was suffering from piles, after consuming medicines of Budhua for 3 months, now she is fine. He charges Rs. 500/- for treatment of arthritics.

Case Study- 11

Name of Healer: Gadadhar Munda

Tribe: Munda

Village: Bayakumutia

District: Keonjhar

Specialization: Fracture and Fever



Gadhadhar Munda lives in Bayakumutia village of Banspal block of Keonjhar district. He is a specialist in bone settings since last 25 years and serving patients in the tribal dominated Keonjhar District. He examines the broken part of the limb and set the bones by tying bamboo pieces and bandage it. The bandage is made of old sarees/dhotis, after applying medicinal pastes made from herbs. He collects medicinal plants from Tarini Bio reserve forest. He says medicinal plants are not available in nearby forest. He has to do hard labour to go to deep forest to collect the materials. After collecting the roots and other parts of the trees, it is made to pieces and then powdered. His wife helps him in preparing the powder. Then the powder is mixed with Ghee made from cow milk. He gives 21 tablets for 7 days.

He learnt this from his uncle Mangal Munda, once his hand was fractured when he was 25-26 years old; he stayed with his uncle for 1 month and learnt the art of treatment of fractures of bone. Patients from 40 kms radius come to him. He claims he has cured thousands of patients. Poor and tribal people come to him for treatment of bones fractures and dog bite. He does not demand anything from patients After the treatment, whatever they can afford, he accept. Now his son Gyana Ranjan learns the art of treatment from him. A poor destitute woman with broken leg from Badasahi village came in a trolley rickshaw and got cured by his treatment.

Case Study- 12

Name of Healer: Suni Khara

Tribe: Dharua

Village: Sankhei

District: Koraput

Specialization: Gynecological problems



Traditional Birth Attendants (thus known as TBA or Dhai) among the Kondh and Koya communities (popularly known as 'dhokaris') are playing a very important role during pregnancy and childbirth. Due to lack of facilities for institutional deliveries, TBAs have been playing an effective role. Because of their functional importance, government and non-government agencies have been providing training to TBAs (Dhai). In-depth interviews were carried out with 14 TBAs distributed in different villages.

Of them, 9 (64.28%) were STs of which four belonged to *Paroja*, and *Kondha* tribe, 3 (21.42%) were SCs and the rest 2 (14.28%) belonged to other caste groups. The age classification of these TBAs indicates that around 57.14 per cent belonged to the age group of 41 to 60 years, while 35.71 per cent were above 60 years of age. About 92.85 per cent were reported as illiterate. It was informed that none of them have received any type of training from the government. Two of the *Kondh* TBAs have trained their young generations to act as TBA. The *Kondha* TBA during last year on an average has attended 9 delivery cases, while a *Paroja* TBA has attended 5 delivery cases. The TBAs are normally paid in the form of kind, which is not a major source of income for them. They consider their skill as a service to their own people. The skill transfer is hereditary which goes in a more participatory manner from mother-in-laws to daughter-in-laws or from mother to daughter.

Case Study- 13

Name of Healer: Gandhi Sisa

Tribe: Gadaba

Village: Sankhei

District: Koraput

Specialization: Black stool and Intestinal problem



Guru Gandhi Sisa, aged 35yrs is a youth of Sankhei Village in Koraput district. He treats diseases related to Intestinal problem. People from nearby villages come with coconut, banana, sindur, leaves from Bel tree. He offers puja to Lord Siva. Sunaram Says people comes to get relieve from family problems, and to get employment. Patients offer puja and then Gandhi advices them to go to doctors to get medicines then the patient get cured. Gandhi says after the patients perform puja, then the doctor medicos give a result and the patients get cured. Gandhi gives leaves of Gangasiuli locally collected Singur for treatment of pain and burn in hand and legs after performing puja.

He says he has surrendered himself before God Shiva and got the divine power. He became 'Dasi' to instruct patients on behalf of god. He claims patients come from nearby villages on Monday and Thursday for treatment. He does not ask for money to them. They pay after the treatment as per their capacity and wishes. His wife Sankara helps him in preparing puja and treating patients. Gandhi says Mr. Bhagabat Majhi said that he had a wound in his stomach. The wound cannot get cured after consuming medicines from Koraput Hospitals for months together. He came to Suresh for treatment twice. He got cured by Gandhi's treatment.

CHAPTER-VII

Major Constraints Faced by the Tribal Medicine-men for Providing Health Care Facilities to people

7.0 Major Constraints Faced by the Tribal Medicine-men:

Tribal traditional and folklore medicine, handed over from generation to generation, is rich in domestic recipes for common diseases. Among the poor tribal, medicines derived from herbs and plants constitute the main source of health care products. Despite the popular use of medicinal plants, their future is being threatened by complacency concerning their conservation. Reserves of herbs and stocks of medicinal plants in tribal areas are diminishing. Different important herbs and plants species are in danger of extinction as a result of deforestation and growing trade demands for cheaper health care products. Here it is relevant to reproduce the following statements from the earlier discussion at Chapter – II (review of literature), which has much relevance in the context of major constraints faced by the tribal medicine-men for providing healthcare facilities to the native people.

- In case of serious illness tribal people tend to attend modern health care facilities. As they are, to some extent, inclined towards modern health care system, the traditional treatment system is losing its credentials among the populations.
- Dependency on herbal medicine has been reduced among tribal population whose habitats are disturbed.
- General concept of disease among the tribes hints at intra-social hostility and a high degree of insecurity owing to activities of the spirits.
- The study shows a declined trend of new generation to adopt this practice as profession.
- There is a greatest challenge to revitalize the traditional health and to promote folk medicine in rural poor people for their Primary Health care.

With these propositions in mind let us examine and discuss the major constraints encountered by the traditional medicine men and healers with the supports of the findings from the previous studies as well as findings of the present study, which analysis the opinions of the sample traditional medicine men.

7.1 Highlights from the secondary sources:

7.1.1 Livelihood Issues

The tribal communities of the State on the basis of occupation are categorized as cattle herder, simple artisan, shifting cultivator, settled agriculturists, and industrial and urban workers. A review of the agro-climatic sub-regions of Odisha dominated by tribal people portrays more or less similar characteristics. The population density is low, with a high percentage being rural by nature. Literacy rates are low, especially among tribal women. Agriculture among the tribal people is characterized by low use of modern technology, and is primarily rain-fed in the minimal ground water utilization. There is a very high incidence of poverty notwithstanding the abundance of natural resources and high potential for agricultural growth. Factors constraining the growth of agriculture are fairly common. Large-scale deforestation and poor husbandry have resulted in degradation of land.

Cropping intensity is low, primarily due to inadequate water harvesting and poor development of irrigation infrastructure. A large proportion of cultivated area comes under rain-fed agriculture and is subject to the vagaries of the monsoons and frequent natural calamities. As a result, most crops cultivated are low value crops. Extension of suitable technologies, particularly for water resource development and agricultural production, does not match the projected planning coverage. A high proportion of cattle in these districts are of inferior quality, and there is an acute shortage of fodder in spite of abundance of wastelands. Equally critical is that the capacities of the tribal population to adopt improved technologies remain latent in village administrations, in giving punishment to the deviants and also in rewarding good persons.

The functional necessities of these institutions are very important in all primitive tribal communities of the State. The community support enforced with customary sanctions play a major role in making these institutions effective. The forcefulness of these institutions is understood from villager's adherence to the decisions made by them. However, over the decades the inter-territorial movement of non-indigenous people has affected the autonomy of the indigenous people in their own land. As a result, the agony of indigenous people has been reflected through resistance against State and the exploiters.

7.1.2 Legal recognition Issues

Traditional Health Practitioners and their patients may not unfairly be discriminated against on the following grounds; race, gender, sex, pregnancy, religion, conscience, belief,

culture, age, marital status, association, ethnicity among others. Traditional healing should not experience any form of discrimination when compared with other health professions. Traditional Health Practitioners and their patients have to be treated with respect and dignity. Patients of THPs must not be subjected to any form of discrimination or unfair treatment. Traditional Health Practitioners like all other individuals have a right and freedom to associate with an organization / association of their choice without fear of intimidation. Traditional Health Practitioners must respect their patients' confidentiality and not disclose any medical information to third parties without their patients' express consent and no one will have the right to search Traditional Medicine Clinics and have the right to seize their possession without a formal communication served.

Every Traditional Health Practitioner has a right to Assembly, demonstrate, picket and petition Traditional Health Practitioners like other groups have a right to stage a peaceful picket, demonstration and submit a petition. Traditional Health Practitioners and their patients may not be prevented from expressing or practicing their beliefs, tradition and healing techniques, unless proven beyond reasonable doubt that such practice causes undue suffering or infringes on the human right of others. Traditional Health Practitioners have a right to gather and prepare medicines however, in the process of doing that do not contribute to environmental degradation but natural resource. Everyone should be able to make use of adequate, accessible, safe and beneficial health care assistance of their choice without any intimidation. All Traditional Health Practitioner's including members of the THO to enjoy without fear of intimidation all rights as enshrined in the constitution of the Republic, in particular this right. THPs like any other profession have the right to speak out on anything that bothers them and their professional administration. No one has absolute right over freedom of expression, this mean the right to practice hate speech, sell wrong, misinformation news and ridicule members. Members have a right to speak out on poor service delivery, discrimination, hate, intolerances and any other forms of abuse exerted upon them by whether the private sector, civil society, state or institutions of the community and individuals.

7.1.3 Unwillingness of the younger generation to inherit & continue the tradition

The traditional healing and magico-religious practice are widely followed in the tribal communities. In the day it is the most popular and first preferred treatment means for the tribal. It is seen that the income for this profession is not enough for the healers or the

disciples. It is getting difficult for the young generation to go for this profession due to several factors i.e. social barrier, economic barrier, community resistances, not liked by the follow workers, etc.

7.1.4 Lack of documentation

It is since several years the traditional healing practices are being followed by the healers in their community. The age of Ayurveda has emerged out of these traditional healing practices. It is very wide spread and scope among the tribal community. There are many deadly diseases also prevented as well cured by the traditional method. It is very popular in case of orthopaedic and chronic diseases the traditional method is very popular among the community. But it is very sad to see that proper documentation of the practices.

7.1.5 Deforestation & Environmental Degradation

Deforestation in tribal area has been accelerated all over the world at an incredible rate of 15 million ha per year (Batisse, 2007). FAO estimates that the annual conversion of tropical forest to other land use was about nine million ha during 2000-10 (Bhattarai et al, 2011). According to the FAO deforestation has been concentrated in the developing world, which lost nearly 200 million ha between 2000 and 2010” (WB, 2011). The India’s forest ecosystem is under severe depletion and degradation and its therefore, viewed as one of the most “ critical ecosystems ” or “hot spots” of biodiversity. During the last two decades India has lost annually 235 sq km forest cover (Nayak, 2011). About 23.7 per cent of mammals and 7.7 per cent of flowering plants are threatened as a result of continued destruction of forests. For instance, in India although the depletion of forest cover on the one hand is halted to a large extent and forest cover is quantitatively increased in recent years, on the other, natural forest stock is qualitatively under severe degradation. This paradoxical change in qualities of natural forest can seriously affect the direct and indirect benefits rendered by the tropical virgin forests. Forest degradation is closely linked to various factors and this can be specified as follows: FD = f (Economic, Demographic, Technological, Climate, Institutional, Social and Market factors) (Reddy et al, 2011).

An accelerated deforestation and associated degradation of environmental resources base has a serious implication not only for the production of ecosystem but also for the resilience of the ecosystem (Dasgupta, 2007). The loss of forest cover is considered as a

serious threat to sustainable development and environment and the lives and livelihood needs of millions of people, (Agrawal, 2002). It is observed that deforestation at an unprecedented rate could block the future development options in most of the developing countries including India. The direct and indirect impact of deforestation in terms of real cost is increasingly observed by many studies in respect of declining agricultural productivity, soil erosion, limited availability of food, medicinal plants, fodder, fuel wood, depletion of underground water table, global warming, ozone depletion, at the regional as well as global level. Some research studies (Perrings, 2010) have found that there is a positive relationship between tropical deforestation and decline in agricultural productivity and vice versa.

They are protection of environment by halting deforestation through involvement of local community in conservation of forests and to realize sustainable development by giving a stake on forests for improvement of their welfare. Economic incentives seem to be required to stimulate the involvement of all affected local community in the process of conservation of forests. Therefore, new participatory style of conservation approach is the need of the hour.

7.1.6 Unfavorable policy

The Act begins by setting out its purpose, defining its ambit, and providing for the manner in which it is to be interpreted. Each of these topics is of importance to an overall understanding of the Act. The purpose of the Act is to advance social justice and economic development by fulfilling its primary objects, which are:

- establish the Interim Traditional Health Practitioners Council of South Africa;
- provide for the registration, training and practices of traditional health practitioners; and
- Serve and protect the interests of members of the public who use the services of traditional health practitioners.

The Act applies to:

- Traditional health practice in the Republic; and
- Traditional health practitioners and students engaged in or learning traditional health practice in the Republic.

Traditional Health Practitioners are defined to mean any person who is registered under this Act and practicing in the Republic. This person should represent either of the following categories; herbalist (inyanga / igedla), traditional birth attendant (umbelethisi), traditional surgeon (ingcibi), diviner (isangoma). This Act does not, however, apply to Holy

spiritualist faith healing, who are persons who uses prayers as treatment for ailments and who do not use traditional medicine.

7.2 Findings from the Field:

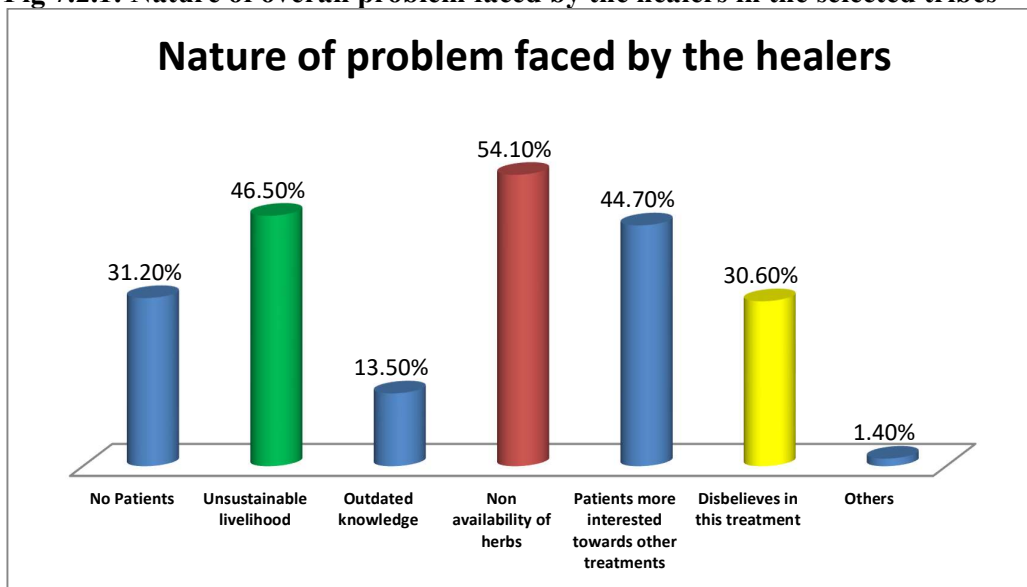
On the basis of the data gathered from the field, the study tries to record the constraints that the local healers faced and going to face in the days to come. It is observed that sustainable livelihood and patients moving to other health care systems are around 40% of the healer's problem and as such, they fear that it will continue with increasing trend in times to come. They assume that such a situation if continue to exist, their traditional medico profession will face potential threat and challenges of other system of treatment. Table 7.2.1 and its corresponding Fig 7.2.1 identify the nature of problems faced by 74 Respondent-Healers.

Table 7.2.1: Nature of Problems Faced by the Healers (N = 74) (Response in %)

Sl. No.	Name of Tribes	District	No Patients	Unsustainable livelihood	Outdated knowledge	Non availability of herbs	Patients more interested towards other Treatments	Disbeliefs in this treatment
1	Koya	Malkangir	28	55	6	38	38	27
2	Bondo	Malkangiri	33	45	11	43	33	22
3	Langia Saora	Gajapati	34	47	9	41	39	31
4	Gadaba	Koraput	31	49	4	44	41	33
5	Gond	Nabarangpur, Sundergarh, Anugul	27	51	12	49	44	34
6	Chuktia Bhunjia	Nuapada,	22	50	13	53	45	36
7	Oraon	Sundergarh	25	48	15	55	38	28
8	Kisan	Sambalpur	29	49	17	51	39	29
9	Dharua	Koraput	33	47	8	50	41	31
10	Paudi Bhuyan	Anugul	31	44	9	44	42	33
11	Khadia/Hill-Kharia	Mayurbhanj, Sundergarh	32	48	5	48	44	37
12	Munda	Sundergarh, Anugul, Keonjhar	34	42	9	49	43	23
13	Desia	Mayurbhanj,	35	39	11	39	38	33

	Kandha	Baleswar						
14	Junag	Phulbani	27	43	12	44	34	37
15	Santal	Keonjhar	29	41	13	42	39	31
16	Bhumij	Keonjhar Baleswar	31	38	10	48	42	32

Fig 7.2.1: Nature of overall problem faced by the healers in the selected tribes



As many as 74 Respondent-Healers identify their problems which they are facing and going to face in near future. The highest number of healers (54.10%) apprehend non-availability of herbs for use as medicines in the nearby forests. While 46.50% respondents predict unsustainable livelihood, a slight less of them accounting to 44.70% realize that day by day the Patients are becoming more interested towards alternative treatments. Similarly, while 31.20% of the respondents felt no demand for the treatments about equal proportion, i.e., 30.60% realized loss of faith on the efficacy of the herbal treatment and half of them (13.50%), leveled the knowledge as obsolete. While 134 (50.75%) healers predict no phenomenal changes in their traditional practice of cure, 130 (49.24%) healers noticed marked changes in their healing practice.

Further, a poll of 264 people in the study villages presents the problems in a different way. Among them the highest proportion of people (31.81%) told non availability of herbs, followed by (20.83%) unsustainable livelihood, 18.56% loss of faith, 9.09% disbelieve in traditional system of treatment, 8.33% healing knowledge outdated, 6.81% Patients more interested towards alternative treatments, while only 3.78% stop going to traditional healers

and less than 1.00% could not state any specific emerging problem. **Table: 7.2.2** supplements the position in details.

Table: 7.2.2. Nature of Problems identified by People/Patients

Sl. No.	Problems facing /going to face	No. of Respondents	Percentage (%)
1	No patients	10	3.78%
2	loss of faith	49	18.56%
3	Unsustainable Livelihood	55	20.83%
4	Out dated knowledge	22	8.33%
5	Non availability of herbs	84	31.81%
6	Patients more interested towards other treatments	18	6.81%
7	Disbelieve in this treatment	24	9.09%
8	Other	2	0.76%
	Total	264	100%

Due to increasing health care interventions by the govt. the disbelief of the community on the traditional healing practice has increased. Moreover, due to destructive factors like deforestation, injections of forest department in collection of herbs in national park, biosphere reserve, and reserve forests and over exploitation of forest resources, the availability of herbs has been drastically decreased. To substantiate the aforementioned fact as many as 198 out of 264 (75.00 %) respondents said that they encounter problems and difficulty in collecting essential herbs and plants due to depletion of forests and restrictions imposed by the Forest department. By the way, as many as 218 (82.75%) respondents thought the future of the practice in a positive way and said that this practice will provide sustainable livelihood to them.

This important traditional institution of the tribal community and the role of the traditional healer are totally overlooked. The government is trying to bring in change in the health scenario of the tribals by introducing and implementing modern health care system. This is ignoring the traditional health care system, more importantly the traditional healers and their medicine from the tribal areas. This has affected the health care system adversely in these areas in two ways. Firstly, this has increased the ignorance of the benefits of modern health care treatment among the tribals which otherwise could have improved their health status. Secondly, it has made the innocent tribals, who seek for modern medical care but not get the facility, victim to the quakes (unqualified health practitioners) prowling rural areas.

The government health intervention has so far not given importance to the efficacy of the traditional healers and their knowledge. It only takes cognizance of the modern doctors and the health workers neglecting the rights and capability of the traditional healers. The

government sponsored health care service has thrown an open challenge to the traditional healers and to the tribal community at large. The traditional healers and their community feel disrespected and challenged.

In the present investigation it was found that traditional healers and medicine men are facing more problems due to non- availability of herbs, unsustainable, introduction of modern treatment, etc. But still most of the healers believe that (i.e. 82.75%) this medical system will provide livelihood for future generation. To enliven this believe the govt. initiatives to safeguard these profession which has really some impact and affordable by the tribal community should be extended with a view to help the healer to earn their livelihood. Despite the increasing use of medicinal plants, their future is being threatened by complacency concerning their conservation. Such concerns have stimulated action in chronicling and conserving medicinal plants through govt. interventions. Such actions already initiated by Government Agencies and further action needed have been dealt in the next Chapter- VIII.

CHAPTER-VIII

Government Interventions

Earlier investigations on the ethno-medicines suggest that thorough knowledge of indigenous medial beliefs and practices and different cultural values attached to them has to be acquired and then modern medicine has to be introduced in a phased manner side by side with the native medicines traditionally rooted in magic, mythology, legend, religion and morality. In inaccessible tribal areas which lack communications, there is a need for collaboration/ integration of the traditional medicine systems (traditional medical practitioners) with the modern notional health system. There is a need to train witch doctors/traditional healers in to scientific use of indigenous pharmacopeia. Further, the impact of changing trends when the tribal culture is influenced required to be studied in respect to the tribal areas. Government interventions on the issues of tribal health seeking behavior and measures should focus on the aforementioned proposals.

According to WHO (1987) traditional medicine is “the sum total of all knowledge and practices whether explicable or not, used in diagnosis, prevention or elimination of physical, mental and social imbalance and relying exclusively on practical experiences and observation handed down from generation to generation, whether verbally or in writing”. Traditional medicines have evolved in different way in different cultures. It appears that traditional medicines have evolved from socio-cultural-perceptual interplay in different cultural set-ups. The phenomena related to traditional medicines often describe the way people in different ages and different cultures accepted them. There has been number of attempts to define traditional medicine by taking in to account the concepts and practices, analyzed and evaluated by several scientific disciplines but failed to find an appropriate and satisfactory or comprehensive definition, which can be covered all aspect of traditional medicine and with that ends to spell out all important features of these sub systems of the medicine, which are called traditional medicine. Further, the area of government interventions which the traditional medicine requires are the need of its study and documenting, protecting, practicing, promoting and identifying the emerging challenges as well as integrating with other scientific health care system. Some of these interventions are discussed in the following lines.

8.1 Documentation of traditional health care practice:

Documentation in this context involves systematic collection, recording and compilation of the oral traditional knowledge and practice of local health traditions. The documentation of local health traditions include systematic recording of data on concept and diagnosis of the diseases; causes and signs and symptoms of the diseases; methods of treatments; the resources (plant, animal, mineral) that are used either singly or in a compound preparation, part/s used; method/s of preparation and administration of the drug; duration of the treatment; precaution or taboos, if any for the treatment of the diseases.

As the traditional knowledge relating to health practice is being reduced quickly due to lack of interests of the new generation and lack of proper documentation there is need of conservation of this knowledge through proper documentation of practices by consulting the knowledge holders. Documentation is fundamental to both for preserving this knowledge for current and future generations, as well as for protecting intellectual property right.

Documentation helps combating the erosion of oral traditional practices. This helps in the identification of the most effective remedies that can be used for health care and also helps in the fight against bio-piracy. There is a need for ITK documentation in relation to a wide range of policy objectives, including the promotion of innovation and creativity of the traditional people, the protection against loss of knowledge related biological diversity, equitable sharing of benefits by using the knowledge, safeguarding of natural culture and identity, community to community learning system of sustainable biological resource management and development strategies, and other objectives.

8.2 Protection of traditional ethno-medicinal knowledge:

Traditional Medicines (TRM) has been recognized in western science as a valuable source of products and treatments for health care. It often provides leads for the development and commercialization of new pharmaceutical products. However, western intellectual property systems have regarded TRM, as well as other components of traditional knowledge (TK), as information in the “public domain”, freely available for use by anybody. This has meant that TRM and other traditional knowledge have been exploited in Western contexts without any recognition, moral or economic, to those who originated or held the relevant

knowledge. Further, diverse components of TRM have been appropriated under intellectual property rights (IPRs) by researchers and commercial enterprises, without any compensation to the knowledge's creators or holders.

Due to such cases of appropriation, growing attention has been paid in the last ten years to the issue of "protection" of traditional knowledge, including TRM. However, "protection" has been used in the literature and advocated by many interested groups, with quite different conceptions and goals in mind. Some (e.g. Downes, 1997) understand "protection" in the context of IPRs, where it essentially means to exclude the unauthorized use by third parties of protected knowledge. Under this approach, IPRs may constitute either an offensive mechanism to support the commercialization of TK and to ensure benefit sharing, or a defensive tool to prevent the misappropriation of traditional knowledge.

Others (e.g., Simpson, 1997) regard "protection" as a means to preserve traditional knowledge from uses that may erode it or negatively affect the life or culture of the communities that have developed and applied it. Protection here has a direct positive role in supporting TK based communities' livelihoods and cultures, and requires the application of mechanisms - such as conservation projects - where IPRs have little or no part to play.

Some aspects of TRM may be protected under existing IPRs, such as patents. There have also been proposals to develop sui generis systems of protection - that is, systems specially suited to the characteristics of traditional knowledge, including TRM. While such proposals in general fail to clearly set out the rationale for their adoption, they are often, explicitly or implicitly, based on considerations of equity: if innovators in the "formal" system of innovation receive compensation through IPRs, justice requires that holders of traditional knowledge be similarly treated. National policy on traditional medicine and regulation of herbal medicines- Report of WHO Global survey:

Various types of traditional medicine (TM) and medical practices referred to as complementary or alternative medicine (CAM), have been increasingly used in both developing and developed countries. One of the major components of the WHO Traditional Medicine Strategy is to promote the integration of TM and CAM into national health care systems where appropriate. Development of national policy and regulations are an essential indicator of the level of integration of such medicine within a national health care system. The use of medicinal plants is the most common form of traditional medication worldwide. Regulation of herbal medicines is a key means of ensuring safety, efficacy and quality of herbal medicinal products. WHO has been receiving an increasing number of requests from governments for guidance on how to regulate herbal medicines.

During the last four years, many countries have established, or initiated the process of establishing national regulations regarding herbal medicines. WHO has been conducting a global survey on national policy on traditional medicine and on the regulation of herbal medicines; aiming to:

- Collect updated and comprehensive information on TM/CAM policies and regulations of herbal medicines,
- Clarify the current situation, in each country, on the TM/CAM national policies and

regulation of herbal medicines, and their major challenges on this particular area,

- Identify the specific needs on capacity building for TM/CAM policy development including establishment of regulations of herbal medicines, and the type of direct support WHO should provide to Member States, and
- Monitor the impact of the WHO Strategy for Traditional Medicine in relation to present national policy and regulation on TM/CAM/herbal medicines.

WHO had received completed survey return from as many as 141 countries. The raw data of the survey results were fed into a database specifically designed for this project, to create basic country profiles. Government clearance has been obtained for each country profile; the manuscript of the draft summary report was finalized in English. The present document provides a summary of the results of the WHO global survey with information from 141 Member States. The baseline information gathered in the first of its kind, and will be valuable not only to help countries compare and learn each other's experiences in strengthening their current TM/CAM system, but also for guiding WHO on provisions of support to Member States.

8.3 Preservation

The great wealth of medicinal plants in our country has made her the pride home of Ayurvedic medicines since the Vedic age. The Ayurvedic traditions passing through the Samhita period offers immense potential to supplement or substitute the modern medicines to serve the mankind the indigenous form of medicine is being practiced in all part of the country traditionally, especially in rural and tribal belts and now convincingly expanding in the urban areas besides knocking the doors of countries discovered modern form of medicines. Plants still form a major ingredient in almost all systems of medicine.

Traditionally, people had never been concentrating on the precious treasure of medicinal plants, herbs, shrubs, creepers, and trees except valuable timber species. This has resulted in unscientific removals and thus become extinct and many are on the threshold of extinction. An assessment of 41 Medicinal plants species has been made which are under vulnerable, endangered and threatened category of the state of Odisha. Due to various constraints like biotic pressure, demand of plant resources, degrading land surfaces etc., the fragile ecosystem can no longer be conserved in situ. For ex situ conservation protected forests rising of medical plants gardens and nurseries are best alternatives.

There are nine medicinal plants garden under the jurisdiction of directorate of Indian medicines and homeopathy, Odisha, Bhubaneswar. All these government interventions with a view to preserve, conserve and peruse for applications of medicines in treatment of diseases need to be mentioned below. Government of Indian/Odisha has built up the following herbal or medicinal plant gardens both in rural and tribal areas like Mayurbhanj, Sambalpur, Bolangir districts as well as in urban centers, such as Bhubaneswar, Puri, etc., where the Ayurvedic Research, Institutes, Medical Colleges and Hospitals have been established.

8.3.1. Government Herbal Garden Harisankar, Bolangir- Total Area- 97 Acre:

It is situated in the foot hill of Gandhamardhana just adjacent to Harisankar temple under Khaparakhhol block of Bolangir district. At present 80 no of rare plants are available in the garden. Besides that, many more valuable plants like Arjuna, Phanaphara, Patali, Bela, Amla, Bahada, Harida, Agnimantha, Nagakeshara, Bhumikusmunda, Kalimushali, Kutuja, Pippali, Golmaricha, Shalaparni, Prushniparni, etc. are available in the garden apart from a patch of dasamool plants species is also available. Another patch of Nagakeshr plant is also there. The garden has separate attraction which helps in demonstration and research purpose of the students, and teachers of Govt. Ayurvedic College, Bolangir and researcher of various sectors including forest and Botany department of visitors etc.

Besides, one more Medicinal Plant Garden measuring in a total Area 2 Acers is situated, in the Government Ayurvedic College campus located at Tulsinagar area of Bolangir. There in the Govt. Ayurvedic College, the students, researchers and teachers are utilizing the garden for study as well as demonstration purpose. Plant materials of garden are also being used in anupan for indoor patients of the Govt. Ayurvedic Hospital, Bolangir

functioning in the campus of the college as well as in the Hospital located near daily market at Bolangir.

8.3.2 Govt. Herbal Garden, Sirsa, Myurbhanj- Total Area 20 Acre:

It is situated at Merumath under Sarasakana block at the river bank of the Suvernakha of Mayurbhanj district. This herbal garden is being used for conservation and in situ cultivation of medicinal plants. Important and most rare, endangered and threatened species are available in the garden like Amla, Bahda,, Harida, Gambhari, Sirisa, Karanja, Majuati, Piashala, Ashoka, Pippali, Golamaricha, Basanga, Guluchi, Guggul, Latakasturi, Eranda, Tuasi, Bhirngaraj, Aswagandha, Kalmegh, Patali, Shyonaka, Agnimantha, Nagakeshara, Tejapatra, Dalachini, Jamu, Varuna, Akarakara (Deshi), Brahmajasthi, Bala, Vriddhadaraka, Chitraka, Dalimba, Dasakerenta, Danti, Ankaranti (Deshi), Brahmajasthi, Bala, Vriddhadaraka, Chitraka, Dalimba, Dasakerenta, Danti, Ankranti, Ela, Ndprasarini etc. most of those plants are natively grown there in garden.

8.3.3 Govt. Herbal Garden, Govt. Ayurvedic Hospital Campus, Bhubaneswar- Total Area 3 Ac.:

It is situated inside the campus of Govt. AyurvedicHospital ,NageswarTangi, Bhubaneswar.Important plants like, Guggul, Amla, Harida, Bahada, Bela, Shikakai,,Shyonaka, Ashoka, Agnimantha, Varuna, Patala, Vacha, ,Arjuna, Jamu, Gambhari, Nimba, Nirgundi, Gangasiuli, Chandana, Manjuati, Dalachini, Nagakeshara, Arakha, Kurubeli, Pasanbhedi, Brahmajasthi, Hemakendara, Guluchi, Anantamula, Tulasi, Aparajitagayasa, Prasarini and Pippali, etc. are available in the garden. The plants are being used as Arupana for the out patients and in patients of the hospital and in Panchakarma wing as well.

8.3.4 Medicinal Plants Garden, Gopabandhu Ayurveda Mahavidyalaya, Puri- Total Area 05 Acres:

It is situated in the college campus adjacent to Dravyaguna Department. Student, researchers and teachers are utilizing the garden for their study. Some plant materials are being used in its own pharmacy in manufacture of Ayurvedic medicines.

8.3.6 Medicinal Plant Garden, KATS Ayurvedic College, Ankushapur, Berhampur, Ganjam- Total Area 3 Acres:

It is situated in the college campus of KATS Ayurvedic College at Ankushapur, of Berhampur in the District of Ganjam. The students, teachers and researches are utilizing the garden for their study and demonstration purpose. Some plant materials are being used as purpose. Some plant materials are being used as Anupana purpose in inpatient Dept. of its hospital and in Panchakarma wing of the hospital.

8.3.7 Medicinal Plant Garden, Dr. A. Ch. Homoeopathic Medical College, Hospital, Bhubaneswar-Total Area 3 Acres:

It is situated in Dr. A.Ch. Homoeopathic Medical College campus, Unit-III, Kharavela Nagar, Bhubaneswar, the students, researchers and teachers are utilizing the garden for their study and demonstration. Some plant materials are also used in its own existing homeopathic pharmacy for manufacturing of homeopathic medicine.

8.3.8 Medicinal Plant Garden, Utkalmani Homopathic Medical College, Rourkela-Total Area 3 Acres:

It is situated in the campus of Utkalmani Homeopathic Medical College, Nayabazar, Rourkela. The students, researchers and teachers are utilizing the garden for learning purpose. Some plant materials are used in its own pharmacy in manufacturing of homoeopathic medicine.

8.3.9. Medicinal Plant Garden, Odisha Medical College of Homoeopathy and Research, Sambalpur-Total Area 2 Acres:

It is situated at Majhipali of Sambalpur, the students, researchers and teachers are utilizing the garden for their study purpose. Some plant materials are also used in its own existing pharmacy for preparation of homoeopathic medicines.

Besides, for preservation and promotion of herbal medicinal plants both Central and state Governments have constituted Medicinal Plant Board as well as lunched centrally sponsored scheme. The State Medicinal Plant Board (SMPB), Odisha was constituted on 7th October, 2002. It was registered under the Societies Registration Act, 1860 in 2010 and presently functioning in Mayur Bhawan, Sahidnagar, Bhubaneswar. The main functions of the board is to promote medicinal plants sector in the state, coordinate with National

Medicinal Plant Board (NMPM), Department of AYUSH, Ministry of Health and Family welfare, Govt. of India, New Delhi; interact with stakeholders; ensure conservation of genetic resources; facilitate cultivation, storage and marketing; promote harness; recommend schemes to N.M.P.M.; Linkage among Growers/Traders. National Mission on medicinal Plants, Odisha: National Mission on Medicinal Plants (NMMP) is a centrally sponsored scheme under National Medicinal Plant Board, Department of AYUSH, Ministry of Health & Family Welfare, Govt. of India, New Delhi. Objectives of the scheme is to increase the area under cultivation of different medicinal plants species, prioritizing zone wise species for commercial cultivation and contract farming, promoting large scale cultivation herbs through farmer in their private land through cluster approach. The NMMP scheme is being implemented in the state of Odisha through Odisha Horticulture Department Society in the Directorate of Horticulture, Odisha, Bhubaneswar since 2009-10.

8.4 Commercialization of ethno medicinal knowledge:

Bio-prospecting is an umbrella term describing the process of discovery and commercialization of new products based in biological resources, typically in less-developed countries. Bio-prospecting often draws on indigenous knowledge about uses and characteristics of plants and animals. In this way, bio-prospecting includes bio-piracy, the exploitative appropriation of indigenous forms of knowledge by commercial actors, as well as the search for previously unknown compounds in organisms that have never been used in traditional medicine.

Bio-piracy is a situation where indigenous knowledge of nature, originating with indigenous people, is used by others for profit, without permission from and with little or no compensation or recognition to the indigenous people themselves. For example, when bio-prospectors draw on indigenous knowledge of medicinal plants which is later patented by medical companies without recognizing the fact that the knowledge is not new, or invented by the patenter, and depriving the indigenous community to the rights to commercial exploitation of the technology that they themselves had developed. Critics of this practice such as Greenpeace claim these practices contribute to inequality between developing countries rich in biodiversity, and developed countries hosting companies that engage in 'bio-piracy'.

The Famous case of Maya ICBG bio-prospecting controversy took place in 1999-2000, when the International Cooperative Biodiversity Group led by Ethno biologist Dr.

Brent Berlin was accused of being engaged in unethical forms of bio-prospecting by several NGOs and indigenous organizations. The ICBG aimed to document the biodiversity of Chiapas, Mexico and the ethno botanical knowledge of the indigenous Maya people - in order to ascertain whether there were possibilities of developing medical products based on any of the plants used by the indigenous groups. The Maya ICBG case was among the first to draw attention to the problems of distinguishing between benign forms of bio-prospecting and unethical bio-piracy, and to the difficulties of securing community participation and prior informed consent for would-be bio-prospectors

In 1995, the U.S. Department of Agriculture and a pharmaceutical research firm received a patent on a technique to extract an antifungal agent from the neem tree (*Azadirachtaindica*), which grows throughout India and Nepal; Indian villagers have long understood the tree's medicinal value. Although the patent had been granted on an extraction technique, the Indian press described it as a patent on the neem tree itself; the result was widespread public outcry, echoed throughout the developing world. Legal action by the Indian government followed, with the patent eventually being overturned in 2005.

Importantly, the pharmaceutical company involved in the neem case argued that as traditional Indian knowledge of the properties of the neem tree had never been published in an academic journal, such knowledge did not amount to "prior art" (prior art is the term used when previously existing knowledge bars a patent). Public knowledge and public disclosure (including oral or written descriptions) are considered prior art in most countries.

Legal and political aspects

8.5 Patent law:

One common misunderstanding is that pharmaceutical companies patent the plants they collect. While obtaining a patent on a naturally occurring organism as previously known or used is not possible, patents may be taken out on specific chemicals isolated or developed from plants. Often these patents are obtained with a stated and researched use of those chemicals. Generally the existence, structure and synthesis of those compounds is not a part of the indigenous medical knowledge that led researchers to analyze the plant in the first place. As a result, even if the indigenous medical knowledge is taken as prior art, that knowledge does not by itself make the active chemical compound "obvious," which is the standard applied under patent law.

In the India, patent law can be used to protect "isolated and purified" compounds - even, in one instance, a new chemical element (see USP 3,156,523). In 1873, Louis Pasteur patented a "yeast" which was "free from disease" (patent #141072). Patents covering biological inventions have been treated similarly. In the 1980 case of *Diamond v. Chakrabarty*, the Supreme Court upheld a patent on a bacterium that had been genetically modified to consume petroleum, reasoning that U.S. law permits patents on "anything under the sun that is made by man." The United States Patent and Trademark Office (USPTO) have observed that "a patent on a gene covers the isolated and purified gene but does not cover the gene as it occurs in nature".

Also possible under US law is patenting a cultivar, a new variety of an existing organism. The patent on the enola bean (now revoked) was an example of this sort of patent. The intellectual property laws of the US also recognize plant breeders' rights under the **Plant Variety Protection Act, 7 U.S.C.** In the country, Traditional Health Practitioners are already a trusted source of health information and treatment. Given appropriate skills and means, they are well placed to play a bigger role in combating Africa's major diseases, THO in partnership with the Traditional Health Practitioners' Council will ensure that the Purpose of the Act is fulfilled.

The purpose of the Act (Section 2) is to advance social justice and economic development by fulfilling its primary objectives are to establish the Interim Traditional Health Practitioners Council of South Africa; provide for the registration, training and practices of traditional health practitioners; and serve and protect the interests of members of the public who use the services of traditional health practitioners.

Application for registration to practice (Section 21)

No THP or Student may be allowed to practice in the Republic unless registered in terms of this Act. All applicants will be expected to attach the following documents to their application to the registrar:

proof that the applicant is a South African citizen;

character references by people not related to the applicant;

proof of the applicant's qualifications;

the prescribed registration fee; and

any further information relating to the application that the council may consider necessary.

Once the registrar is satisfied that the information and documentation submitted in support of an application for registration meet the requirements of this Act and upon receipt of the prescribed registration fee, the register will issue a registration certificate authorizing the applicant to practice as a THP within the Republic. Should this application not meet the required standard then membership may be refused or referred to the Council for a decision

Will patients treated by THPs qualify for medical aid?

Formal legal recognition of the practice of traditional medicine has a number of benefits for practitioners and their patients. In terms of the Medical Schemes Act, schemes may now have to be transformed to include visits to THPs. Since TH Practice has been made law, medical schemes can choose either to register their members or not, so that they can qualify for medical aid payout.

Writing out medical certificate or sick notes

According to the THP Act all practitioners who are legally practicing in this country will have the right to give out medical certificates or sick notes. However, if an employer suspects that a traditional health practitioner has fraudulently or dishonestly issued a medical certificate, that employer will be able to lay a complaint with the Interim Traditional Health Practitioner's Council. The Council will be legally obliged to investigate the complaint and take the appropriate disciplinary action against the THP concerned. Before this Act this was not possible, the same could be done by an employee whose employer refuses to admit back to work on the basis of the origin of the sick note. There was no one to complain to except perhaps the THO alone. The other interesting issue is that the employer will have a mechanism to question the skill and knowledge of the THP who issued the medical certificate. The BCEA states that a medical certificate must be issued and signed by a medical practitioner or any other person who is certified to diagnose and treat patients and who is registered with a professional council established by an Act of parliament.

It is clear that section 23(2) now includes traditional health practitioners.

Chapter 1(s) (1) Definitions

This is one of the most important sections of the Act as it clarifies the meaning of the word used in a particular context, unless the context indicates otherwise, What will be the future of organizations / associations?

There are currently over 200 traditional health practitioner organizations or associations in the Republic. Depending on the strength and registration criteria some of these range from 10 – 1000s of members, with some just regionally, provincially and/ or nationally based. Some

of these associations collect monies from membership without giving them properly deserving products and monies charged by these range from R70 – 500 payable upon registration. Associations of THPs will continue to exist even if the Council is instituted because the two institutions will have different roles and responsibilities. The best way to illustrate their different roles is to draw a comparison between these associations and the South African Medical Association on the one hand, and a comparison between the Interim Traditional Health Practitioners Council and the Health Professions Council on the other hand. There can be many SAMAs. This will enable people to exercise their right and freedom of association. There can be many Traditional Health Practitioner associations such as the THO. Membership of such associations is voluntary. Practitioners can choose whether or not to join.

Fees charged by registered persons (section 42)

All registered practitioners must before providing any health service inform their patients to whom the services will be rendered, of the fee which he or she intends to charge for that particular service.

Payment of annual fees (Section 50)

No organization or association is allowed to anticipate or inform its members about monies that could be charged as registration or membership fees according to this law unless the Minister says so on recommendation of the Council (this is a national body that will be formed by the Minister through the THP Act regulations).

Transitional provisions (Section 51)

No one may take legal steps or institute disciplinary action against you for engaging in traditional health practice during the period of one year following the date of commencement of this Act.

8.6 Government Assistance:

All the healers-respondents numbering 74 (41 traditional healers and 33 Magico-religious leaders) were asked about the government assistance received by them for enhancing their knowledgebase and traditional health practice.

Table 8.1 Input given/taken to enhance your knowledge and practice OF HEALERS

	Traditional Healer		Magico Religious Leaders		Total	
	No	Percentage	No	Percentage	No	Percentage
Training	4	9	3	8	7	10.5
Workshop	11	27	2	7	13	12
Seminar	11	27	3	8	14	12.5
Others	9	22	4	12	13	17

None of the above	6	15	21	65	27	35
Total	41	100	33	100	74	100

From the table it is clearly indicated that 7(10.5%) of them have received training, 13(12%) attained workshop, 14(12.5%) seminars and 13(17%) of them attained informal discussion at district level. It is observed that 27(36%) of them have not attained any training or workshop/seminars organized by Govt. During data collection it was asked their expectation from government to enhance their skill and practices, training to all, tool kits, financial incentives and seminar/workshops so that they could practice well in TIME TO come.

.....

CHAPTER IX

Summary of Findings, Suggestions and Conclusion

In order to fulfill one of the objectives of the study it is required to suggest actions for improved documentation of the traditional healing and magico-religious practices among the selected tribal communities. For fulfillment of this objective we have obtained the opinion of five categories of respondents such as the healers/magico religious leaders and their disciples, village level informants, Ayush doctors, patients in the selected tribal communities and local traditional informants. The very purpose was to ascertain the level of traditional medicine practices by the local healers and magico-religious practices and the way forward.

9.1 Summary of the findings:

On basis of the findings of the Field study, some of which corroborated with that of the earlier studies, the following prospects and way forward on the tribal health issues are need to be mentioned here.

To begin with let us have a resume of the distinction between traditional medicine and modern medicine. The traditional medicine looks at results, but the modern medicine comprehends the mechanism of action, cause and effect. The former is a home remedy with material from local flora and fauna and supported by a cultural baggage. It is cheap and easy on the taking and used directly on tribal people while the latter is expensive, not easily reachable to the tribals and it is tested first on cells/organs of animals in the lab and then applied on humanity.

Next comes the theme on the belief on the efficacy of the knowledge of herbal medicine, medicine men and magical/ spiritual healers. Tribal and forest areas with its rich biodiversity and traditional knowledge of medicinal plants use is expected to play a very important role in the field of herbal medicines. Thorough knowledge of indigenous medial beliefs and practices and different cultural values attached to them has to be acquired and then modern medicine has to be introduced in a phased manner side by side with the native medicines traditionally rooted in magic, mythology, legend, religion and morality. Strategic step may be taken at government level to meet the challenges of globalization so that good health may be delivered within the easy reach of the tribal, being fully conscious of the limitations of traditional knowledge and wisdom of this regard. Further, there is prospect of formation of tribal market with the stakeholder-ship of community as cooperatives so that the benefits could come back to the tribal.

Further, the following is a resume of summary of the findings of the study, the details of which have been discussed in the preceding chapters.

- Agriculture is the main occupation of the villages about 70% of people depend on this. 10% on animal husbandry and 9% on wage earning and rest are depended on forest collections.
- The study village was consisting of 2292 households having 11650 populations. The total land area of the village 4304 sq.km out of which 0.35 sq.km is covered by forest, 0.265 sq.km is used as cultivated areas and 0.155 sq.km is under irrigation.
- The health status of tribal group in general is reported to be in poor condition. Their health and sickness are influenced in general by a combination of biological cultural and environmental factors.
- The magnitude of malnutrition and disease among PTG people in general and their women and children in particular is high leading to high infant and maternal mortality. Non-availability of safe drinking water and poor sanitation has led to poor hygiene. Similarly, inadequate and non-access to healthcare service have made the PVTGs vulnerable to diseases caused by nutrition deficiency and other factors.
- In tribal areas of Odisha the larger part of the diet is obtained from locally available and produced food materials. Religious customs and local traditions relating to feasts, fasts and food taboos do have a bearing on the dietary pattern of the people.
- In folk beliefs magical power are wielded by some persons with special training in magical lore and practices. Some others, in a way exclude evil magical power at the sight of beautiful, lovable or covetable objects, animals, crops or even presentable human beings.
- It was found that taking of intoxicant is one of the major habits of tribal people. 38.24% of populations are addicted with tobacco and other intoxicant, though it is lower than non habituated (61.74%) population. Intoxicant habit is one of the major causes that leads to diseases in this areas.
- Among the sample ST people 37.8% tribal population believe that accidental inhalation of this cold air can make a person very sick. They also believe that complicated diseases and ailments such as typhoid, pneumonia, leucoderma, piles, goiter, rheumatism, etc, originates from the spell or curse to the evil spirits or exorcise the violation of some god or to the work of sorcerers, who are inimical.
- Tribal community for every 100 population there is one traditional healer exists but

for every 1000 it is getting difficult for one magico religious leader. The traditional practice is not that popular so it became difficult for the study to get sufficient no of disciples. The healers are happy with the profession and they could practice it well in their community.

- Among 30% of the healers do not have proper formal education but doing well in their profession. Around 12% of the healers have graduation and above qualification. From the study it is evident that educational background of the healers and magico religious leaders do not have different impact on their profession.
- The wrath of god/goddesses/Ancestors/Ghost and evil spirit is perceived to be 30% of the patients irrespective of people believing on local healers or magico religious man. It also observed that as per the cultural superstition and barrier the tribal population believe more on evil eye and Unseen super natural power.
- The traditional healers have used their spiritual skill more than their traditional skill for the treatment of the patients. In many cases also the healers also use both the skill for the treatment.
- In case of common cold, cough and fever tribal people were found reluctant to go for treatment. They used to perceive it as seasonal problem and believed in natural cure. Thus it was reported that almost one third of the people in both set of villages stayed at home while suffering from this disease. In case of children suffering from prolong cough, nearly 42 % of them in distant villages were treated with medicine provided from PHC etc.
- The people affected by diarrhea in the villages sought treatment from traditional healer as against 10 % of affected people of other set of villages who went to traditional healer. People rather preferred going for modern health care facilities in case of serious disease. But lack of facilities in distant villages drew people's attention towards traditional healing system.
- The people perceived change of weather as a major cause of fever, cold and cough. In case of diarrhea lack of nutrition was one of the major causes known to them. According to the half of the people jaundice was caused by the effect of bad spirit. This also established the reason why most of the affected people sought treatment of traditional healers instead of modern medicine.
- Three disciples are there for every *GURU* in the study areas. 67% of the healers agree that there are teaching learning process exists between *GURU-SHISYA*. The

transmission of knowledge is a self driven process and when we think of any local process of treatment it is fully depend on the disciples.

- There is no record keeping practice with any of the healers in any community. The disciple should show their own interest in learning this practice and work for any particular community.
- In total, 5.80 per cent cases have not sought any treatment, while 33.27 treatment episodes attended government hospital and 46.82 per cent treatment episodes attended private source exclusively for undertaking treatment. Around 14.09 per cent episodes attended both private and public health institutions for their treatment on priority basis. They have seen that the regular absence of government health personnel in their operational areas prevents the villagers from getting reliable health services from Government PHIs.
- The data suggest that the people belonging to the most productive age groups are highly affected by different diseases followed by children (below 6 years).
- The income from this profession is not enough for the healers or the disciples. It is getting difficult for the young generation to go for this profession due to several factors i.e. social barrier, economic barrier, community resistances, not liked by the follow workers, etc.
- The depletion of forest and major initiatives are taken by the Govt. /forest departments now a day's healers are facing problems for collecting their essential herbs and herbal plants from the forest. This is one of the major problems that are healers (i.e. 75%) facing today.
- The traditional healers and medicine men are facing more problems due to non-availability of herbs, unsustainable, introduction of modern treatment, etc. But still major portion of healers believes that (i.e. 82.75%) and rest 17.42% are not believe in this issues.
- The above study showed that the non-availability of herbs (31.81%), livelihood (i.e. 20%), and unsustainable (18.56%) are the major causes that healers are facing today. Besides this, more numbers of patients are adopting modern treatments or other treatments (6.81%), 2.65% of healers facing constrains because some peoples do not believe in their treatment. Out dated knowledge is another reason for which healers are facing problems now a day, (i.e. nearly 0.75%).

- Around 40% of the healers agree that in days to come this profession is not going to earn their livelihood. The health care interventions of Govt. have increased and community belief is a constraint for the healers.

9.2 Policy issue and options:

1. Since tribal traditional medicine, a social institution and an integral part of the whole culture, includes a number of medical practices which are often employed in modern medicine, assimilates several drugs used in modern medicine and resemble each other in psychotherapeutic modalities, there is enough scope for both the medicines to operate simultaneously.
2. Since the medical beliefs and healing practices in Tribal medicine are crystallized in ethno scientific knowledge acquired by men through historical created designs for living within their eco-cultural system, the indigenous medical practices could perpetuate as rational and efficacious methods.
3. Since modern medicine is costly, its network has not reached the interior-most areas, the Tribal people will not be able to get the benefit at their door-steps, hence there is need for the patronization of Tribal medicine.
4. Since the current approaches to medical pluralism (Allopathy, Aurveda, Homeopathy, Unani, etc.) will perpetuate, the support for revival and rejuvenation of Tribal medicine, except its spurious magico-religious aspects are advantageous to cater to the needs of the denizens of hills and forests.
5. Since Tribal medicine is integrated in other cultural elements of a society, its concept and practice are epistemologically transmitted from generation to generation orally in the absence of written language in non-literate/ pre-literate societies, there is need for documentation of such languishing tradition, notwithstanding the secrecy, discretion and confidentiality maintained by traditional healers who prefer to transmit along the lines of descent in kinship configuration.
6. Since Tribal medicine needs perpetuation, there is expediency in research and training for consolidation and conservation, thereby aiming at the well-being of the people and the enhancement of the quality of life, a much awaited goal of the planned development intervention.
7. Since the tribal medicine and medicinemen are to be safeguarded for their dedication to the suffering humanity there is need for legal provision to protect their intellectual

property rights under the General Agreement on Tariffs and Trade (GATT) and other allied international agreement.

9.3 Suggestions:

As an outcome of the study, the suggestions have been prepared on the views expressed by and the pool of opinion from the tribal leaders, the traditional healers and local experts through fresh interviews and FGDs conducted during the field study. Besides, some suggestive lines have also been compiled from some earlier studies on tribal healing practices and ethno medicines and these along with the fresh findings are reflected in the following sets of suggestions.

Hygiene, food, drink and nutrition:

- There is lack of hygiene at temporary water source. Further, water is stored in unhygienic conditions. Thus arrangement may be made so that Anganwadi workers or Accredited Social Health Activists (ASHA) may run water kiosks in tribal areas, to ensure safe drinking water round the year, especially during summer and rainy seasons.
- The issues associated with malnutrition have been identified as poor nutritional status, endemic malaria, lack of vocational education or under-employment, inadequate healthcare facilities, poor access to health care and services, low levels of literacy and food insecurity. Millets has more advantage in nutritional production per acre in comparison with other cereals like rice and wheat. The millets have anti-cold and anti-cancer properties. Thus there is need for an urgent publicity and awareness programme for boosting millet cultivation and up scaling of millet based farming and the inclusion of millets in mid-day meal and ICDS programmes.
- The message of evil effect of liquor should be reached to Health and Physical Education (HPE) programmes in primary and secondary schools in a big way. Also Awareness campaigns may be launched from the Gramasabha to reject applications for opening new bars and liquor outlets in tribal areas.

Health & Herbarium:

- Services of the traditional healers are of great importance to tribal population as they are rendering their services in very remote places where other health facilities are not reaching to people who are really in need of health services. They are acquiring and

correlating their knowledge with established records and information available with other communities. Thus the traditional healers of these areas need to be involved in all sorts of trainings to youngsters as well as refreshing their knowledge with healers of other communities.

- In inaccessible tribal areas lack communications facilities. There is a need for collaboration/ integration of the traditional medicine systems (traditional medical practitioners) with the modern notional health system in such tribal areas.
- There is a need to train witch doctors/traditional healers on scientific use of indigenous pharmacopeia.
- Medicinal plants being used by the tribal healers need to be experimented and validated and useful herbal perceptions should be promoted and marketed for income generations through the formation of tribal market with the stakeholder-ship of tribal community as cooperatives so that the benefits could come back to the tribal.

General:

- At times, tribal people in general and their women in particular are mentally and physically tortured for magical treatment of cure through witchcraft. This is a health hazard in the name of curing diseases, traditionally and magically. As such there is a need to study the distinction between good and bad magic. After identifying the findings of the bad effects of curing by application of bad magic, steps should be taken not to allow a practitioner of harmful magic to live and stipulates punishment for it. Human Rights Law Network (HRLN), an all-India body of lawyers and a free legal aid body, which act a very negative attitude towards witchcraft, may provide free legal assistance to the poor tribal patients who face harmful magic to live and to get cure.
- The impact of changing trends when the tribal culture is influenced, which is required to be studied in respect to tribal areas.
- The importance of the tribal medicine has to be acknowledged by the government system and policies. The role of government for the existence of this system of medicine should be to give due recognition to their contribution and involvement of tribal medicaments. To delineate the specific scope, limit and role of traditional healers in tribal health promotion the heritage and culture of tribal communities are saved from extinct.
- Further, the research and development activities should be undertaken by the govt. for safe up keeping of this profession. The system should provide orientation and support to healers and magico religious leaders and there should be proper monitoring and strengthening system to do proper follow up.

- Clinical examination of the tribal herbal medicines may be made to determine their values which can be shared and added with the knowledge of other Ayrvedic and modern medicines and be used with value addition.
- Steps may be taken to identify the tribal healer who has planted medicinal plants in his herbal garden and encourage others to do so as an economic activity to enhance his family livelihood.
- Increased demand of herbal remedies among the STs which can be encashed through sustainable conservation, collection and marketing of medicinal herbs and their products. Popularization of this system will increase public awareness regarding importance of conservation of forests and the precious healing herbs in them
- Geographical accessibility, awareness and affordability to modern health care practices must be improved in the tribal areas to achieve the target in the field of development of health. Thus a special strategy would be formulated linking all schemes and projects with a view to ensure benefits of all govt. interventions relating health, hygiene and sanitation programmes reaching the PVTGs and STs through the tribal development projects. like ITDAs and Micro Projects.
- Indigenous system of health care and practitioners should be incorporated in the health care planning of and programmes. Community participation, mutual interaction between the service providers and beneficiaries is extremely essential for success of development programmes related to health among the tribal communities.
- Although the Government schemes on health and hygiene are in existence, some ST villages and hamlets stay out of the coverage due to their terrain and inaccessibility and population norm of the schemes. So Health, Women and Child Development and ST and SC Development departments should have combined effort to plan and execute special health and nutrition interventions for these left out villages and hamlets.

9.4 Conclusion:

Over the decades the State has adopted various structural and functional measures for the development of health sector. This has been reflected both in health programmes implemented and health infrastructure placed to deliver the services. Realizing the conditions and reasons for non-delivery of the health services in interior tribal dominated pockets of the state, the state from time to time has adopted special programmes and approach towards the region and the people therein. The tribal people who live in these areas are belonging to different levels of development, which is reflected in their technology, knowledge, skill, access, affordability, etc. Looking into the ground realities in tribal dominated pockets, the

health programmes like nutritional programmes for the pregnant and lactating mothers or for any fatal diseases like TB, Malaria suffer due to lack of strong dissemination mechanisms of the scientific knowledge and services.

Culture and social systems are dynamic and subject to change. While we speak about traditional tribal societies we always depict a society in transition. It has been well revealed in this study that the Santal society has been changing at a certain pace in terms of their health seeking behavior. The rapid depletion of natural surrounding and eco-system of tribal people compounded with infiltration and intrusion of non-tribal elements into tribal domain play a major role in changing tribal culture, value system and their worldview. The study certainly points out that the traditional health care system still finds its meaning of survival in tribal domain. The traditional healer, who considered as the guardian of tribal society, acts as the medium between man, nature and supernatural entity and provides spiritual security to the tribal people. This is the link on which the uniqueness of tribal society exists. The tribal people feel secured with the protection given by their traditional healers against psycho-social problems or spiritual insecurity.

The spiritual insecurity plays vital role in availing health care services, lack of which leads to failure of the system. But it is sad to see that many government policies hardly accept this component in their health related aids and campaigns. A rational synthesis of traditional perception with modern facilities would certainly give better results in tribal health issues in India.

This study shows that knowledge and usage of traditional medicine for the treatment of various ailments among tribes is still a major part of their life and culture. Cultural and biological biodiversity are intimately and inextricably linked. The indigenous phototherapy of tribes can provide a useful alternative to conventional human health care. Traditional knowledge system is important for modern societies, not only because traditional knowledge itself is a valuable aspect of cultural heritage and should be protected in its own right, but also because of its great value in modern development, especially regarding the sustainable use of forests, ecosystem services and management. It is an urgent task to record the posterity, whatever is valuable in the tradition of the tribes, their way of life and their knowledge of the plants before all these disappear. To conclude it is note-worthy to mention the following fact findings and challenges.

- The tribal traditional knowledge on ethno medicines is being diluted and diminishing day by day.

- Tribal communities whose natural habitat remains relatively undisturbed use more herbal medicine than those whose habitats are disturbed.
- That the modern health interventions started since 80s in this region are yet to be made available within the reach of the people. Still in case of serious illness people tend to attend modern health care facilities.
- There is a greatest challenge to revitalize the traditional health and to promote folk medicine in rural poor people for their Primary Healthcare.
- That the treatment practices of the Tribals are also influenced by ethno-medicines largely collected even from distant forests.
- That the traditional healers still enjoy faith of the tribal for their timely services.
- That the traditional knowledge on the treatment of diseases, which transfers from generation to generation, is yet to be scientifically documented, examined and value added and shared. Thus the study suggests further study and documentation of traditional medicines and knowledge.

REFERENCES

Books

1. Balgir, RS. 2002: "Traditional health problems, disease burden and ameliorative challenges in tribal communities with special emphasis on tribes of Odisha"
2. Basu, S.K. 1994: "The State-of-the Art: Tribal Health in India", , in Salil Basu (ed.), Tribal Health in India. Delhi: Manak Publ, P-70-83., 312.
3. Bhasin, Veena. 2005: "Ecology and Health: A Study Among Tribes of Ladakh" Studies in Tribes and Tribals, 3(1):1-13, Kamla-Raj Enterprises, Delhi.
4. Bryant, J. 1988. "Health for all: The Dream and the Reality." World Health Forum, 9(3): 291-302.
5. Chaudhuri, B. 1994. "Social and environmental dimensions of tribal health". In S. Basu (Ed.), Tribal health in India (pp. 70-83). New Delhi: Manak Publications Pvt. Ltd.
6. Choudhury S 2000. Indigenous beliefs and practices of herbal medicine among the few Arunachalis. Resarun, Govt. of Arunachal Pradesh, Department of Cultural Affairs 26: 72-81.
7. Das, K. 2006: Tribes and their Culture, Koya Tribe in Transition, A P H Publishing Corporation, New Delhi- 110 002.
8. Dash, N.C, Dash, B. and M. Gouswami.2003 "Traditional Method of Reproductive Health Care Practices and Fertility Control among Bhumija Tribe of Baleswar, Odisha".
9. Dash B, Dash NC 2003. Ethnobotany of Kondhs of Ganjam. In: PK Chand, SN Patro (Ed.): Science for Society. Bhubaneswar: ISCA Publication of 7th OBS, pp. 132-135.
10. Dash, B and Dash, N.C. 2009: Kondhs, An Ethno-Botanical Study, Amadeus Press, Bhubaneswar.
11. Jain S. and S. Agrawal: 2005, "Perception of Illness and Healthcare Among Bhills: A Study of Udaipur District in Rajasthan" Studies in Tribes and Tribals,3(1): 15-19, Kamlaraj Enterprises, Delhi.
12. ICMR 2012: Health Status of Primitive Tribes of Orissa" ICMR Bulletin, ISSN0377-4910.
13. L. Sunita Devi 2003: "Ethno-medical Practices in Manipur: A Case of Evil Eye", Anthropologist, 5(1): 25-40, Kamla Raj Enterprises, Delhi.
14. Lewis, Oscar. 1958. Village Life in Northern India. New York: Random House. N. Guite and S. Acharya. 2006, "Indigenous Medicinal Substances and Health Care: A Study Among Paite Tribe of Manipur, India", Studies in Tribes and Tribals, 4(2): 99-104, Kamla Raj Enterprises, Delhi.

15. Mohanty, P.K. 2006: Encyclopedia of Scheduled Tribes in India, of, Vol.4 –East, Isha Books, Delhi-11033, pp-158-174.
16. Nagdda, B.L. 2004, “Tribal Population and Health in Rajasthan”, Studies in Tribes and Tribals, 2(1):1-8, Kamla-Raj Enterprises, Delhi.
17. Nayak, S., Behera, SK., and Mishra, MK., 2003: “Ethno-medico- Botanical Survey of Kalahandi District of Orissa”,
18. P. Purujit, “Impact of Traditional Cultural Values on Acceptance of Healthcare Systems among Santhals of Odisha”; Tata Institute of Social Science, Mumbai, India.
19. Raj Pramukh and P.D.S. Palkumar. 2006, “Indigenous Knowledge: Implication in Tribal Health and Disease” Studies in Tribes and Tribals, 4(1): 1-6, Kamla Raj Enterprises, Delhi.
20. Rout S.D. and Thatoi H.N. 2009- “Ethno-medical Practices of Kol Tribes in Similipal Biosphere Reserve Orissa, India”, Dept. of Biotechnology, North Orissa University, Takatpur.
21. Sachchidananda. 1994: Socio-cultural Dimension of Tribal Health”, pp 57-69. in Salil Basu (ed.), Tribal Health in India. ; Manak Publ. Delhi.
22. Singh, Bhupinder. 1994 . “Factors Influencing Health of Tribal Population Groups”, pp.40-56, in Salil Basu (ed.), Tribal Health in India. ; Manak Publ. Delhi
23. Socio-economic and Socio-cultural Correlates", in Salil Basu (ed.), Tribal Health in India. ; Manak Publ. Delhi, Pp.1-12.
24. World Health Organization. 1980: The Primary Health Worker. World Health Organization,

Journals

- 1 Barth, F. 1956: "Ecological Relationship of Ethnic Groups in Swat, North Pakistan." American Anthropologist, 58(6): 1088.
- 2 Behera, Panda, & Mishra, 2006: Medicinal plants used by the Kandhas of Kandhamal district of Orissa, Indian Journal of Traditional Knowledge, Vol 5(4)-October 2006 -pp 519-528.
- 3 Bhasin, Veena. 2004: “Sexual Illness and Underutilization of Biomedicine among Tribal Women of Rajasthan”, in Anthropologist, 6(1): 1-12, Kamla Raj Enterprises, Delhi.
- 4 Das, N.K. 2013: Health Status and Health Care Services: A Study among the tribal Communities of Jajpur District of Odisha, Adivasi, Vol. 53 No. 1&2 June & Dec. 2013) p-34.
- 5 Health Seeking Behaviour, Acceptability of Available Health Facilities and Knowledge about Tuberculosis in a Tribal Area” Indian Journal of Tuberculosis, 43, 195-199, Tuberculosis Association of India, New Delhi.

- 6 Mohanta, R.K., Rout, S.D. and Sahu, H.K.2006 “Ethno-medicinal Plant Resources of Similipal Bioreserve Orissa, India”, Zoos’ Print Journal 21(8): 2372-2374.
- 7 Mohanty, G.N. and Moharana, A.K. 2005: The World of Saora Medicine: A Note on believe system, medicine & medicine man, Vol. 45, No. 2, June, 2005, Adivasi, The Journal of SCSTRTI, Bhubaneswar, pp-1-11.
- 8 Panda SK., Rout SD., Mishra N., and Panda T., 2011: – “Phytotherapy and traditional knowledge of tribal communities of Mayurbhanj District, Orissa, India” ; Journal of Pharmacognosy and Phytotherapy vol.3 (7),Academics journal, pp-101-113.
- 9 Sahoo, T. 1995: Health and Nutritional Status of Juang Children, In Adivasi, Vol. XXXVIII No. 1 & 2, The Journal of SCSTRTI, Bhubaneswar, pp- 52 – 62.
- 10 SCSTRTI, 1997: Tribal Medicine and Medicine Men: An Exploratory study of the Bonda of Odisha in Adivasi, Vol. XXXVII, No. 2, December, 1997, The journal of SCSTRTI, Bhubaneswar, pp-33-71.
- 11 SCSTRTI, 1997: Tribal Medicine and Medicine men: An Exploratory study of the Didayi of Odisha in Adivasi, Vol. XXXVII, No. 2, December, 1997, The journal of SCSTRTI, Bhubaneswar, pp-72-101.
- 12 V. Amruthavalluvan- “Ethno-medicinal practices and traditional healing system of Kattunayakan in Tamilnadu: An Anthropological Study”; International Multidisciplinary Research Journal 2011, 1 (7): 47-51, ISSN: 2231-6302.

Reports

1. ICMR Report. 1984: Growth and physical development of the Indian infants and children. Tech Rep Ser No.18. New Delhi: Indian Council of Medical Research.
2. “Studies on Tribal health” 2004: Annual Report 2003-04, Regional Medical Research Center, Bhubaneswar.

ANNEXURE- I

PERSONNEL/ ORGANIZATIONS INVOLVED AT DIFFERENT STAGES

Study Design

Dr Prasanta Parida

Questionnaire Preparation

Dr Prasanta Parida

Orientation to Researchers

Dr Prasanta Parida

Coordination of Research Study

Dr Prasanta Parida

Prof LK Vaswani

Coordinating Data Collection

Mr Himanshu Swain

Mr Gopal Bhoi

Data Collection

Priyabrata Das

Udayanath Das

Biswaranjan Sahoo

Mahendra Kumar Hati

Srikanta Ku. Das

Sarangadhara Swain

Data Entry

Ms Prativa Mahalik

Ms Swगतिका Kanungoo

Mr Narayan Barik

Data Processing and Graphics

Ms Prativa Mahalik

Ms Swगतिका Kanungoo

Report Writing

Dr Prasanta Parida

Mr Gopal Bhoi

Annexure II: List of study villages

Sl.no.	Name of the community	Name of the district	Name of the block	Name of the village
1	Munda	Keonjhar	Hatadihi	Sundarapal Saralapasi
2	Juang	Keonjhar	Banspal	Gunasika Baya Kumutia
3	Paudi Bhuya	Angul	Pallahara	Dudi Pani Jamaradihi
4	Oram	Sundargh	Balisankara	Ghughar Balisankar
5	Bhumij	Balasore	Basta	Patihada Basta
6	Santal	Mayurbhanj	Badasahi	Suhagpur Gua Behera
7	Hill Khadia	Mayurbhanj	Jashipur	Kapand Matiyagada
8	Kisan	Sambalpur	Kuchinda	Badapada Mantri munda
9	Chuktia Bhumija	Nuapada	Komna	Cherichima, Barakot
10	Desia Kandha	Kandhamal	Phiringia	Daleisahi, Sasi Pradhan
11	Gonda	Nabrangpur	Raighar	Simuda Para Parua
12	Koya	Malkangiri	Korkunda	MV-33 Gonglaguda
13	Bonda	Malkangiri	Khairiput	Mudulipada padei guda
14	Gadba	Koraput	Lamptaput	Kanti Guda Sankhei
15	Lanjia Saura	Gajpati	Gumma	Serango Bhubani
16	Dharua	Koraput	Baipariguda	Haladikund, Talur

Annexure III: Inventory of healing practices

Medicinal Plants Used By Santal						
Sl. No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food and Other Restriction
1	Calendula officinalis L. (Asteraceae); Gendu	Leave	Cut	Water of that boiling leaf given to the patient	Leaves are mixed with lime and form a paste and applied to the effected cut area and insect bite.	No such restriction
2	Carica papaya L. (caricaceae); 'Amruta Bhanda'	Juice	Toothache	Juice is extracted from the whole plant	Juice extracted is applied in case of toothache.	No such restriction
3	Careya arborea Roxb. (lecythidaceae); kumbhi	Bark	Indigestion	Powder is prepared by dusting	Bark of plant and cumin seeds made in to paste is taken orally with water in indigestion and flatulence.	Spicy food and alcohol is restricted
4	Catharanthus roseus (L.) g. Don. (Apocynaceae); sadabahari	Roots, leaves	Septic Wounds, Blood Dysentery	By dusting the root given to the patient	Root paste is applied twice a day continuously seven days for healing of septic wounds and fresh leaf juice (few drops) mixed with a cup of water and is taken in empty stomach for treatment of blood dysentery.	No such restriction
5	Celastrus paniculatus wild. (celastraceae); 'pengu'	Bark, seeds, oil	Stomach Pain	all are mixed together and taken in water	Oil from seeds is used as mosquito repellent, leeches and other biting insects. Stem bark and seed oil is taken in acute stomach pain.	Spicy food and alcohol is restricted
6	Patal Garuda	Root	Pain in stomach	Guti Maricha, Ada, Sunthi, Patal Garuda, Dubata Tree, Agni Jhada Mix	2 Times Per Day	Sour, Non Veg Items, Alcoholic Drink
7	Mudika Tree	Root	Pain In Stomach	Guti Maricha, Ada, Sunthi, Patal Garuda, Dubata Tree, Agni Jhada Mix	2 Times In A Day	Sour, Non Veg Items, Alcoholic Drink
8	Dukda Tree	Root	Dysentery	Guti Maricha, Ada, Sunthi, Patal Garuda, Dubata Tree, Agni Jhada Mix	Twice A Day	Sour, Non Veg Items, Alcoholic Drink

9	Kanthua Phala	Fruit	Cough	Kanthua Phala, Ghia, Gola Maricha, Ada, Sunthi, Pipali, Mahu Rasa Mix Together To Prepare Medicine	Twice A Day	Sour, Non Veg Items, Alcoholic Drink
10	Chaula Dhuan Gachha	Bark	Headache	The Paste Of Chauladhua Tree Apply On The Head	Twice A Day	Sour, Non Veg Items, Alcoholic Drink
11	Fihiria Gachha	All Parts Of Tree	Child Those Getting Sensless	The Juice Of Kanta Sagar Has Been Dranken For Spirit Treatment	Twice A Day In Morning	Sour, Non Veg Items, Alcoholic Drink
12	Pagada Gachha	Bark	Bone Fractures	By Mixing	Three Times In A Day	Sour, Non Veg Items, Alcoholic Drink

Medicinal Plants Used By Hill Khadia

Sl. No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food and Other Restriction
1	Momordica dioica Roxb. Ex Wild. (cucurbitaceae); kankada	Fruit	Diabetes	Taken orally	Fruit juice is effective in controlling diabetes. It is also used as drink mixed with sugar candy, one glass daily, to control acidity.	No such restriction
2	Morinda citrifolia L. (Rubiaceae); 'achu'	Root	Dysentery	Cutoff the 1 inch of root after drying and preparing medicine from that by grinding	Decoction of root (30-40ml) is given to cure from dysentery.	No such restriction
3	Mucuna pruriens (L.) DC (fabaceae); 'Baidonko'	Seed	Ulcer	Oil is extracted from the seed	Paste of the seeds is applied to the ulcers of the genital organs of both sexes. Meat preparations are restricted in the diet during the period of treatment.	No such restriction
4	Murraya koenigiin (L.) spreng. (rutaceae); Ban mallika	Leaves	Gastritis	Leaves are boiled in water	The green leaves are used in curries to check gastric	No such restriction
5	Nyctanthes arbortristics L.	Leave	Malaria	Taken by the water of the leaf by boiling	250g leaves is boiled with ½ liter of water till it becomes 100ml and mixed with leaves juice of ocimum tenuiflorum. This decoction is mixed with 50 ml of honey and prescribed for 3 days to cure malaria fever.	No such restriction
6	Ocimum	Leave	Cough	Taken by the water of	Fresh leaves of ocimum	No such

	tenuiflorum L. (Lamiaceae); tulusi			the leaf by boiling	tenuiflorum along with ginger and honey are made into pills . this pill is taken orally twice a day for one or two days to cure form cough.	restriction
7	Patal Garuda	Root	Pain in stomach	Guti Maricha, Ada, Sunthi, Patal Garuda, Dubata Tree, Agni Jhada Mix	2 Times Per Day	Sour, Non Vegetable Items, Alcoholic Drink
8	Mudika Tree	Root	Pain In Stomach	Guti Maricha, Ada, Sunthi, Patal Garuda, Dubata Tree, Agni Jhada Mix	2 Times In A Day	Sour, Non Vegetable Items, Alcoholic Drink
9	Dukda Tree	Root	Dysentery	Guti Maricha, Ada, Sunthi, Patal Garuda, Dubata Tree, Agni Jhada Mix		Sour, Non Vegetable Items, Alcoholic Drink
10	Kanthua Phala	Fruit	Cough	Kanthua Phala, Ghia, Gola Maricha, Ada, Sunthi, Pipali, Mahu Rasa Mix Together To Prepare Medicine	Twice A Day	Sour, Non Vegetable Items, Alcoholic Drink
11	Chaula Dhan Gachha	Bark	Headache	The Paste Of Chauladhua Tree Apply On The Head	Twice A Day	Sour, Non Vegetable Items, Alcoholic Drink
12	Fihiria Gachha	All Parts Of Tree	Child Those Getting Senseless	The Juice Of Kanta Sagar Has Been Drank For Spirit Treatment	Twice A Day In Morning	Sour, Non Vegetable Items, Alcoholic Drink
13	Pagada Gachha	Bark	Bone Fractures	By Mixing	Three Times In A Day	Sour, Non Vegetable Items, Alcoholic Drink

Medicinal Plants used by Desia Kandha

Sl.No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food and Restriction
1	Clitoria ternatea L.(fabaceae) aparajita	Leaves	Wounds	Juice is extracted by grinding	The leaf juice is applied to stop bleeding from cuts and wounds	No such restriction
2	Coccinia grandis (L.) Voigt (cucurbitaceae), Bana kunduri	Leaves	Jaundice	Taken fresh leaves directly	Fresh leaves along with leaves of kalanchoe pinnata and sugar are ground with water and taken twice a day for four to five days to cure jaundice	No such restriction
3	Crotalaria spectabilis Roth, (fabaceae), Jhunka	Whole plant	dysentery	Plant is fully grind and taken orally	Juice extracted is given orally to cure dysentery	Spicy food alcohol is restricted

4	Curculigo orchioides Gaerthn (Amaryllidaceae) Tatmul,)	Tuber	Snake bite	Paste is prepared	Tuber is made into paste and applied externally against snake bite.	No such r
5	Curcuma amada Roxb. (Zingiberaceae); Banahaladi	Rhizome	piles	Paste is made from it	Rhizomes used for piles. Paste of 7 long peppers (Piper longum) 65mixed with 3g of plant paste each used twice for 3 days for the treatment of piles.	No such r
6	Curcuma aromatic Salisb. (Zingiberaceae); Banahaladi	Rhizome	Skin diseases	Paste is prepared from it	Rhizome paste is applied on new born child to prevent all types of skin diseases and also applied to dry up the child naval (round of placenta) and cures other infections. A paste made with its rhizome and dudura leaves (datura metel) is applied on Brest swelling of women.	No such r
7	Curcuma angustifolia Roxb. (zingiberaceae); Palua	Root	Dysentery	by dusting the root given to the patient	Roots and sugar are mixed with large quantities of water and given twice a day for three to four days to cure dysentery	Spicy foo alcohol is restricted
8	karanga leaf, Chitamula leaf		Eczema, skin irriatation			No such r
9	Bhrusunga Tree	Leaf	kidney		Root juice is driken	Alcohol i taken
10	BARA	Branch	dysentry			Spicy and foods rest
11	Singharhara	Leaf	malaria		Adding black piper on the leaf juice given to the patient	Spicy and foods
12	khapara kanti	root and shoot	Arsh		Khapar kanti, bani khari root and tunduphuta should be mix	Alcohol i taken

Medicinal Plants Used By Munda						
Sl. No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food and Other Restrictions
1	Patal Garuda	Root	Pain in stomach	Guti Maricha, Ada, Sunthi, Patal Garuda, Dubata Tree, Agni Jhada Mix	2 Times Per Day	Sour, No Items, Alcohol Drink
2	Kalanchoe pinnata (Lam.) Pers. (Crassulaceae); 'Hemsagar'	Leaves	Dysentery	The leaf juice is extracted	25 ml of fresh leaves juice is given orally three times a day for a week to cure gynecological disorders	No such restriction
3	Lagerstroemia speciosa (L.) pers. (Lythraceae); Patoli	Leave	Gynecological disorder	By extracting leaf juice	One teaspoon leave extracts in water is given orally daily in the morning for a week to cure gynecological disorder.	Alcohol taken
4	Lygodium flexuosum (L.) Sw. (Lygodiaceae)	Leave	Blood dysentery	By grinding the dry leaf	Powdered root 2g mixed with 1 g piper nigrum and 100 ml of water are orally administered twice a day for three days to check blood dysentery.	No such restriction
55	Lygodium scandens Sw. (Lygodiaceae)	Leaves, rhizomes	Joint pain	Both are grinded together	Equal proportion of leaves mixed with leaves of Andrographis paniculata and rhizome of curcuma longa are made in to paste and applied for one week to get to relief from joint pain.	No such restriction
6	Lygodium microphyllum (Cav.) R. Br. (Lygodiaceae)	Leave	Dysentery, skin disease	Taken orally with water	Leaves decoction is given in dysentery. leaves poultices are applied for skin diseases and swelling.	No such restriction
7	Madhuca longifolia (Koenig) Macbride (Sapotaceae), Mahula	Flower	Piles and fistula	7 flowers together are mixed and eaten in water	Flowers (corolla) are boiled in water with a pinch of salt for half-an-hour; 5-10 ml of this decoction is given with honey, thrice a day for seven days in piles and fistula.	No such restriction
8	Mudika Tree	Root	Pain In Stomach	Guti Maricha, Ada, Sunthi, Patal Garuda, Dubata Tree, Agni Jhada Mix	2 Times In A Day, Taken In Form Of Powder	Sour, No Items, Alcohol Drink
9	Dukda Tree	Root	Dysentery	Guti Maricha, Ada, Sunthi, Patal Garuda, Dubata Tree, Agni Jhada Mix	Taken In Form Of Powder	Sour, No Items, Alcohol Drink

10	Kanthua Phala	Fruit	Cough	Kanthua Phala, Ghia, Gola Maricha, Ada, Sunthi, Pipali, Mahu Rasa Mix Together To Prepare Medicine	Twice A Day, Taken In Form Of Powder	Sour, Non Items, Alcohol Drink
11	Chaula Dhuan Gachha	Bark	Headache	The Paste Of Chauladhua Tree Apply On The Head	Twice A Day, Applied On The Head In A Semi Liquid Form	Sour, Non Items, Alcohol Drink
12	Fihiria Gachha	All Parts Of Tree	Child Those Getting Senseless	The Juice Of Kanta Sagar Has Been Drank For Spirit Treatment	Twice A Day In Morning	Sour, Non Items, Alcohol Drink
13	Pagada Gachha	Bark	Bone Fractures	By Mixing	Three Times In A Day	Sour, Non Items, Alcohol Drink

Medicinal Plants used by Bhumij

Sl.No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food and Other Restrictions
1	Phyllanthus fraternus Webster (Euphorbiaceae); 'Bhuiyanla'	Whole plant	Jaundice	Making powder after drying the tree	Decoction of 5g of fresh and clean roots mixed with a glass of un boiled cow's milk is taken twice a day for three days to cure cold fever. Whole plant is used in jaundice.	sour, items, alcohol drink
2	Piper trioicum Roxb. (piperaceae); Chaikatho	Stem	Cold, throat infection	Paste is made from it	The nodal portion of stem (2-5 cm long) is made into paste with black peppers and garlic, heated and given thrice a day for two days only for cold, tonsillitis and throat infection.	sour, items, alcohol drink
3	Plumbago zeylanica L. (Plumbaginaceae); Doodhbachra	Roots	Indigestion	Cutoff the 1 inch of root after drying and preparing medicine from that by grinding	Two teaspoon root powder is taken after meal to avoid indigestion	sour, items, alcohol drink
4	Saraca asoca (Roxb.) de wilde (Caesalpiniaceae); 'Ashok'	Bark	Gynecological disorder	Powder of bark is prepared after drying that	Bark used in gynecological disorders.	Spicy and a is rest
5	Schleichera oleosa (Lour.) Oken (Sapindaceae); 'Kusum'	Whole plant	Gout, scabies	Making powder after drying the tree	Stem bark paste is applied on the skin before bed as curative against for itching and seed oil are used for treatment of gout and scabies. Seed- paste is heated and applied warm to the cuts. White patches on the skin are cured by applying seed-paste.	Spicy and a is rest
6	Solanum surattense Burm.f. (solanaceae);	Fruit	Tuberculosis	Taken directly mixed with pepper	Paste of fruits mixed with pepper and ghee of cow is given for seven days as a remedy for tuberculosis.	sour, veg i alcohol

	‘Bhagebaigtana’					drink
7	Sphenomeris chinensis (L.) Maxon. (Lindsaeaceae);	Leaves	Toothache	Boiled in water and juice is taken	Tender leaves are chewed for at least 5-10 min for treatment of toothache.	sour, veg i alcohol drink
8	karanga leaf, Chitamula leaf		Eczema, skin irriatation			No su restric
9	Bhrusunga Tree	Leaf	kidney		root juice is driken	Alcohol not ta
10	BARA	Branch	dysentry			Spicy oily f restric
11	Singharhara	Leaf	malaria		Adding black piper on the leaf juice given to the patient	Spicy oily f
12	khapara kanti	root and shoot	Arsh		khapar kanti, bani khari root and tunduphuta should be mix	Alcohol not ta
13	Pterocarpus marsupium Roxb. (Fabaceae); Piasala	Bark	Dysentery	Powder is prepared by crushing it	Powdered bark is mixed with schleichera oleosa and taken with cold water for treatment of dysentery.	Spicy and a restric
114	Rauvolfia serpentine (L.) Benth.ex Kurz. (Apocynaceae); ‘Patalgaruda’	Leave	Malaria	Juice is prepared by grinding it	Juice extracted from leaves mixed with the juice of Andrographis paniculata and Azadirachta indica and given it with honey to drink for seven day continuously to cure malaria.	Spicy and a restric
15	Ricinus communis L. (Euphorbiaceae); ‘Joda’	Leave, seed	Gastritis	Leaf is grinded and paste is prepared from that ; and oil is extracted from the seed	Paste of leaves applied locally and teaspoon seed oil for treatment of swellings, wounds, stomach disorder and gastric problem.	Spicy and a is res
16	Shorea robusta Gaetrn. F. (Dipterocarpaceae); ‘Sal’	Stem	Earache	Juice is extracted from the stem	Filtered stem juice is directly used for relief from earache.	Spicy and a is res

Medicinal Plants used by Juang

Sl.No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food & Other Restriction
126	Tridax procumbens L. (Asteraceae); Bishalyakarani	Whole plant	Wounds	making powder after drying the tree	Fresh leaf juice is applied as anti septic cream for healing of cut wounds.	No su restric
127	Triumfetta rhomboidea Jacq. (Tiliaceae); ‘Tatatatia’	Root	Quick delivery	cutoff the 1 inch of root after drying and praparing medicine from that by grinding	50 g crushed root given orally for easy delivery during child birth.	sour, n items, drink
128	Vanda tessellate (Roxb.) G. Don	Leaves	Earache	Juice is extracted from fresh leaves	Two to three drops of warmed leaves juice are put in the ear once a day for	sour, n items,

	(Orchidaceae); 'Malaga'				two to three days to reduce earache.	drink
129	Ventilago maderaspatana Gaertn. (Rhamnaceae); rakta pichula', Bark.	Bark	Fracture	Paste is prepared and paste is applied	The bark grounded in to a paste and applied locally in bone fracture.	sour, n items, drink
2	karanga leaf, Chitamula leaf		Eczema, skin irriatation			No suc restrict
3	Bhrusunga Tree	Leaf	kidney		root juice is driken	Alcoho taken
4	BARA	Branch	dysentery			Spicy foods
5	Singharhara	Leaf	malaria		adding black piper on the leaf juice given to the patient	Spicy foods
6	khapara kanti	root and shoot	Arsh		khapar kanti, bani khari root and tunduphuta should be mix	Alcoho taken
131	Vitex negundo L. (Verbenaceae); 'Begunia'	Leaves , lower	Skin	grinding together and applied	Seven teaspoons of juice extracted from leaves and barks of steyncus nuxvomica are applied like ointment on the affected part.	sour, n items, drink
132	Woodfordia fruticosa (L.) Kurz (Lythraceae); 'Dhatki'	Flower, bark, leaves	Menstruation	all are mixed together and taken in water	Flowers paste and bark paste of Champa (Michelia champaca) is given twice a day for 7 days to women in excess of bleeding during menstruation. Juice is a good for treating dysentery.	No suc restrict
137	Atylosia scarbaeoides (L.) Benth. Fabaceae, Birhorre (K)	Root	Rheumatism	taken after grinding	Roots are ground together with Vitex negundo (tender leaves), kaempferia rotunda (root), Clausena excavate (root) and boiled in pongamia pinnata oil and the oil is applied externally.	No suc restrict
140	Calotropis gigantean (L.) W.T. Aiton, Asclepiadaceae, Patladhudha (Or.)	Root	Malaria	cutoff the 1 inch of root after drying and praparing medicine from that by grinding	Approximate 4 inch each two pieces root is boiled in 400ml cow milk for 5-10 minutes and filtered juice is taken one teaspoon mixed with sugar for treatment of malaria and once in a month as preventive.	No suc restrict
141	Careya arborea Roxb. Lecythidaceae, Kumbhi (Or.)	Bark	Piles	Bark is allowed to grind and then paste is prepared from it	50 g stem bark is boiled with water and taken (1 glass) in empty stomach once a day for 7 days.	No suc restrict
142	Cassia fistula L. Fabaceae, Sonari (Or.)	Leave	Constipation	Laef juice is prepared	Half tea spoon juice extract is taken orally thrice a day.	sour, n items, a drink
143	Catharanthus roseus (L.) Don, Apocyanaceae, Sadabihari (or.)	Flowers	Diabetes	Fresh flowers and small leafs are taken orally	Infusion of young leaves and flower is taken in morning daily.	No suc restrict

Medicinal Plants used by Langia Saora:

Sl.No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food and Other Restriction
150	Desmodium gangetium (L.) DC. Fabaceae, Salaparni (Or.)	Root	Fever	cutoff the 1 inch of root after drying and preparing medicine from that by grinding	Decoction of root is taken in empty stomach once for 15 days to cure fever.	No such restriction
151	Elephantopus scaber L. Asteraceae, Talmuli (Or.)	Root	Urine infection	cutoff the 1 inch of root after drying and preparing medicine from that by grinding	Root paste is taken twice a day for a week for the treatment of pain during discharge of urine.	sour, non veg items, alcoholic drink
153	Hemidesmus indicus (L) R.Br., Asclepiaceae, Guachemda (K.)	Root	Snake bite	cutoff the 1 inch of root after drying and preparing medicine from that by grinding	Root is made into paste applied on wounds soon after snake bite. Paste is given orally too.	no such restriction
154	Kaempferia rotunda L. Zingiberaceae, Bhumichampa (Or.)	Bulb	Ulcer	Paste is prepared from it	Along with root of swertia angustifolia and honey made paste given orally twice a day till cure	sour, non veg items, alcoholic drink
155	Litsea glutinosa (Lour.) C.B. Robinson, Lauraceae, Ledhachhali (Or.)	Bark	Wound	Bark is allowed to dry and then powder it, after that a thick paste is prepared by mixing water.	Paste is applied on wound to heal up faster.	No such restriction
159	Rauvolfia serpentina, (L.) Benth. Ex Kurz, Apocynaceae, Chhedabag (K.)	Root	Malaria	cutoff the 1 inch of root after drying and preparing medicine from that by grinding	Roots are grounded with roots of Cissampelos pareira in equal quantities with water and taken orally.	No such restriction
160	Scoparia dulcis L. Scrophulariaceae, Chiranta (Ko)	Leaf	Sore throat	3 leaves twice taken in a day	Decoction of leaf is taken twice continuously for a week for the treatment of sore throat.	Not to take alcohol
1	Tetli Amta, Kikalameda, Lajakulilata	Root	Jaundice	taken after grinding	Thrice a day in a semi liquid form	No, complete bed rest
2	Bajra, Karkatmada, Lajakuli Lata	Root, bark and fruit	dysentery	by grinding	2 TIMES PER DAY In a semi liquid form	No, complete bed rest
3	Patas, Kiklamada, Lajkul	Bark, leaf	joint pain	by boiling	Semi Liquid	to take rest and not to do hard work
4	Mirpi	Bark	joint pain	by grinding	Semi Liquid 3 Times Per Day	walk in morning

					Boiling After Grind And Then Take	
5	Dumbajada, Limburta, Putar	Root, Bark	FEVER	by grinding	All Times, Semi Liquid	to drink sufficient water
170	Ricinus communis Linn. (Euphorbiaceae)	Seed	Head ache	Oil from the seed is extracted	Seed oil applied on head for cooling effect	sour, non veg items, alcoholic drink
171	Vitex negundo Linn. (Verbenaceae)	Leaves	Leprosy	Leaf is juice is extracted by grinding it	20 ml of infusion of leaves taken orally 3 times with a gap of 4 days	sour, non veg items, alcoholic drink

Medicinal Plants used by Koya:

Sl.No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food and Restriction
161	Sida acuta Burm. F., Malvaceae, Ipipijon (K.)	Root	Conjunctives	taken after grinding	Two drops of juice are put in the eye.	Not to take alcohol
162	Soyimida febrifuga (Roxb.) A. Juss, Meliaceae, Rohini (Or.)	Bark	Colic	Allowed to dry and then powder is prepared by grindings or crushing it.	Bark powder is mixed with fruits of Terminalia chebula in equal quantities with water is taken thrice a day.	
163	Withania somnifera (L.) Dunal, Solanaceae, Ashwagandha (Or.)	Flower	Spermatorrhea	Daily 3 fresh flowers are taken directly with honey	Decoction of flower is taken with honey once a day in empty stomach for one month for the treatment of spermatorrhea.	No such restriction
164	Woodfordia fruticosa (L.) Kurz. Lythraceae, Icha (K.)	Tender leaves	Dysentery	taken after grinding	Juice is good for treating dysentery.	No such restriction
165	Ziziphus rugosa Lam. Rhamnaceae, Chunkoli (Or.)	Bark	Dyspepsia	Powder is prepared	Decoction is given orally	sour, non veg items, alcoholic drink
166	Adhatoda zeylanica medic. (Acanthaceae) Barleria prionitis Linn. (acanthaceae)	Leaves	Cough	Taken orally with honey	Decoction of seven leaves taken orally for one week. 15ml of leaf juice mixed with honey given orally for one week	sour, non veg items, alcoholic drink
1	Tetli Amta, Kikalmda, Lajakulilata	root	Jaundice	taken after grinding	Thrice a day in a semi liquid form	No, complete
2	Bajra, Karkatmada, Lajakuli Lata	root, bark and fruit	dysentery	by grinding	2 TIMES PER DAY In a semi liquid form	No, complete
3	Patas, Kiklamada, Lajkuli	bark, leaf	joint pain	by boiling	SEMI LIQUID	to take rest not to do work
4	Mirpi	bark	joint pain	by grinding	Semi Liquid 3 Times Per Day boiling after grind and then take	walk in morning
5	Dumbajada, Limburta, Putar	root, bark	FEVER	by grinding	ALL TIMES , SEMI LIQUID	to drink sufficient water
139	Calendula	Leaves	Cut	Taken directly to	Leaves, upper layer of bamboo and	sour, non

	officinalis L., Asteraceae, Gendu (Or.)			the fresh leaves	lime are mixed together and form a paste and applied.	items, also drink
144	Cissampelos pareira L. Var hirsute (Buch. -Ham. Ex DC) Forman, Menispermaceae, Pitusing (K.)	Root	Colic	cut off the 1 inch of root after drying and preparing medicine from that by grinding	Filtered root juice is taken with water.	No such restriction
145	Clausena excavate Burm.f., Rutaceae, Agnijhal (Or.)	Root	Body pain	cut off the 1 inch of root after drying and preparing medicine from that by grinding	Root is made into paste and given internally. Roots are boiled and the water is taken against dysentery.	SOUR, N VEG ITE ALCOHO DRINK
146	Crotalaria spectabilis Roth, Fabaceae, Jhuaka (Or.)	Root	Dysentery	cut off the 1 inch of root after drying and preparing medicine from that by grinding	Juice extracted is given orally	No such restriction
147	Curculigo orchiooides Gaertn, Hypoxidaceae, Talmuli (or.)	Tuber	Snake bite	taken after grinding	Tuber is made into paste and applied externally as an antidote.	SOUR, N VEG ITE ALCOHO DRINK
148	Curcuma amada Roxb. Zingiberaceae, Amahaladi (Or.)	Whole plant	Piles	making powder after drying the tree	Paste of 7 long peppers (Piper longum) mixed with 3 gm of plant paste each used twice for 3 days for the treatment of piles.	No such restriction
149	Dalbergia latifolia Roxb. Fabaceae, Sisso (Or.)	Oil	Eczema	oil is extracted from seed and applied	Oil is applied externally to treat eczema.	SOUR, N VEG ITE ALCOHO DRINK

Medicinal Plant Used By Kisan:

Sl.No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food & Other Restrictions
92	Mimusops elengi L. (Sapotaceae), Baula	Leaves	Toothache	Leaf is allowed to dry and then powder is made from it	Decoction of powder of leaves is used with warm water to gargle to reduce toothache.	No su restric
99	Ophioglossum reticulatum L. (Ophioglossaceae);	Leave	Menstrual disorder	Taken by the water of the leaf by boiling	5gm fresh leaves along with 100gm rice are made into pills. This pill is taken orally in empty stomach for 15-20 days against menstrual disorder.	No su restric
100	Oroxylum indicum (L.) Kurz (Bignoniaceae); 'Phimpinia'	Leave	Jaundice	Taken by the water of the leaf by boiling	50ml leaves juice is prescribed to be taken orally thrice a day for three to four days to cure jaundice.	No su restric
101	Oxalis corniculata L. (Oxalidaceae);	Leave, Root	Cold	Taken by the water of the leaf by boiling	Roots are made into paste along with garlic and given 1 spoonful twice a day for cold. The leaves	No su restric

	'Amliti'				are eaten as vegetables to check burning sensation of soles.	
1	Bhuin Limba	Compleat Bhuin Limba Tree	Malaria	making powder after drying the tree	TABLETS adult 3 tablets childs 1/2 per day	
2	Harida and Bahada	Seed	Malaria		making tablets by drying both of the seeds	
3	sunari tree	Root	Blood Dysentry	by grinding	no specific time in form of tablets	No food restrictio
4	Nali patal garuda	Root	Paralysis	cutoff the 1 inch of root after drying and praparing medicine from that by grinding	2 tablets after meal	No su restrictio
5	neem oil	Fruit	Hookwarm	oil is extracted from seed and applied	any time	No su restrictio
6	Nali kain, Rasi juice, Mandar flower, and Ostha Bark	Juice, Flower, Bark	Irregularity In Menstural Cycle	all are mixed together and taken in water	befour eatinf 3-4 spoon	to balc their n condit
74	Datura metel L. (Solanaceae), Dadura	Leaves	Swelling And Pain	Taken by the water of the leaf by boiling	Paste of leaves applied locally to cure swelling and pains.	No su restrictio
75	Drynaria quercifolis (L.) j.sm. (Drynariaceae)	Whole plant	Headache	making powder after drying the tree	The entire plant is cooked with rice and eaten to cure headache. Leaves juice mixed with honey is given three times a day	No su restrictio
76	Elephantous scaber L. (asteraceae); mayor chandrika	Whole plant	Sexual vigor	making powder after drying the tree	Young shoots are shade dried, powdered and mixed with root powder of saraca ascora in 1:1 ratio and administered with one glass of milk after dinner for 15 days for one week to generate strength and sexual vigor.	No su restrictio
77	Enhydra fluctuans Lour. (Asteraceae); 'Hidimicha'	Leaves	Cough	Taken by the water of the leaf by boiling	Pure mustard oil mixed with leaves juice and given to cure headache. Leaves juice mix with honey is given three times a day in cough.	No su restrictio

Medicinal Plants used by Bonda:

Sl.No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food and Restrictio
-------	--------------------	-------------------------	----------	---------------------	------------------------	---------------------

130	Vernonia anthelmintica (L.) Wild. (Asteraceae); 'Kalajeera'	Seed	Antithelmentic	Taken by dusting it	Seeds are used in antithelmentic especially for children, 2-5 gm with water in empty stomach twice a day for three days	no such restriction
133	Ziziphus rugosa Lam. (Rhamnaceae); 'Chunkoli'	Bark, flowers	Hysteria	Mix together and grinded	Decoction of stem bark along with piper longum paste and ginger paste is used in hysteria treatment.	No such restriction
134	Agave sisalana Peer.ex Engl., Agavaceae, Sisal (or.)	Leaves	Tongue Infection	Leaf juice is prepared	Leaf juice applied with honey on tongue	sour, non items, alcohol drink
135	Alstonia scholaris (L.) R.Brown, Apocynaceae, Chhatina (or.)	Bark	Jaundice	Bark is crushed and powder is made from it	Decoction of bark along with bark of piper tricum, Mangifera indica and piper nigrum (10-15 nos) taken twice a day for 3 days.	No such restriction
136	Andrographis Paniculata (Burm.f.) Wall.ex Nees, Acanthaceae, Bhuineem (Or.)	Whole plant	Headache	making powder after drying the tree	Entire plant is made in to paste and applied externally on forehead.	No such restriction
1	Tetli Amta, Kikalmada, Lajakulilata	root	Jaundice	taken after grinding	Thrice a day in a semi liquid form	No, complete rest
2	Bajra, Karkatmada, Lajakuli Lata	root, bark and fruit	Dysentery	by grinding	2 times per day In a semi liquid form	No, complete rest
3	Patas, Kiklamada, Lajkuli	bark, leaf	Joint Pain	by boiling	SEMI LIQUID	to take rest not to do work
4	Mirpi	bark	Joint Pain	by grinding	Semi Liquid 3 times per day boiling after grind and then take	walk in morning
5	Dumbajada, Limburta, Putar	root, bark	Fever	by grinding	all times, semi liquid	to drink sufficient
107	Polyalthia cerasoides (Roxb.) Bedd. (Annonaceae), champati	Bark	Reptile Bites	Powder is prepared by crushing it	The dry and old seed rubbed against stone with water is applied in reptile bites and scorpion stings.	spicy food alcohol is
108	Pteris cretica L. (polypodiaceae);	Fronds	Wounds	Applied directly on wounds	Fronds are antibacterial and made into a paste is applied in wounds.	sour, non items, alcohol drink
115	Smilax perfoliata Lour. (Smilacaceae); 'Ramdantuni'	Root	Gynecological	Boiled in water and taken	Root are boiled in water and this water is given orally with honey to cure gastric problem like indigestion. 150 g fresh crushed root boiled with 200 ml mustard and massaged on affected part twice day for 4-5 days. Root used in gynecological disorder.	Spicy food alcohol is
118	Spondias pinnata (L.f.) Kurz	Bark, fruits	Blood Dysentery, Muscular Pain.	Boiled in water and juice is taken	Root bark paste (5g) with mustard oil (1ml) used as massage for the treatment	Spicy food alcohol is

	(Sapindaceae); 'Ambada'				of muscular pain. Unripe fruits (3-4) are roasted, peeled and pulp is made in to three pills. One pill is given three times a day for two days for blood dysentery.	
119	Sterculia urens Roxb. (Sterculiaceae); 'Kudalo'	Bark	Vomiting	Boiled in water and juice is taken	Bark powder is given with little water to stop vomiting.	Spicy food, alcohol is
120	Strychnus nox-vomica L. (Strychnaceae); 'kochila'	Seeds	Gastritis	Oil is extracted by grinding it after dried	Seed are used in gastric trouble and dyspepsia.	sour, non-spicy items, alcohol drink

Medicinal Plants Used By Dharua:

Sl. No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food and Other Restrictions
4	Actinopterys dioica, bedd.	Root	snakebite	Handful of leaves are grinded with sugar and diluted with water to obtain a thin consistency	Seven hairs like roots are chewed and swallowed.	No sugar, restrictive
7	tridax procumbens	Leaf	Common wound	Four to six leaves are rubbed with two to three flowers on palm. The paste like substance is used as medicine.	The paste is applied externally on the wound and piece of cloth is tied on it.	No sugar, restrictive
8	Carica papaya, Linn.	Fruit latex	ringworm	The unripe fruit is wound to ooze enzymatic milk like fluid.	The affected area is scraped with a clean dry stone or wound. When it emits blood or fluid the milk is applied.	Not too much sugar.
13	Vitis quadrangularis.		Bone fracture	The root and branches are grinded and made a thick paste.	The root and branches are grinded and made a thick paste.	No sugar, restrictive
17	(i) schleicheria trijuga. (ii) terminelia chebula.	Oil Fruit	The infection in between fingers of the foot. The fruit is roasted and rubbed against the infection.	The infected part is washed with warm water, wiped & applied with kerosene oil. It is then painted with kusum oil.	No sugar, restrictive
18	(a) Schleicheria trijuga (b) ongamiaglabra.	Oil	scabies	Both the oil is mixed and warmed.	The affected part is washed with hot water and painted with oil mix.	No sugar, restrictive
1	Bhuin Limba	Complete bhuin limba tree	malaria	making powder after drying the tree	TABLETS adult 3 tablets child's 1/2 per day	
2	Harida and Bahada	seed			making tablets by drying both of the seeds	

3	sunari tree	Root	blood dysentery	by grinding	no specific time in form of tablets	No food restrictions
4	Nali patal garuda	Root	paralysis	cutoff the 1 inch of root after drying and preparing medicine from that by grinding	2 tablets after meal	No such restrictions
5	neem oil	fruit	hookworm	oil is extracted from seed and applied	any time	No such restrictions
6	Nali kain, Rasi juice, Mandar flower, and Osth Bark	juice, flower, bark	irregularity in menstrual cycle	all are mixed together and taken in water	before eating 3-4 spoon	to balance mental condition
42	Barleria prionitis L. (Acanthaceae); daskerenta	Leaves	fever	7 fresh leaves taken orally	Decoction of leaf extract is given with honey for seven days to cure fever.	No such restrictions
43	Bauhinia vahili W. and A. (Caesalpiniaceae), Siali'	Bark	Dysentery	Powder	Bark of the stem and lime made in to paste and are taken orally , twice a day for three days to cure dysentery.	Spicy food and alcohol are restricted
44	Belchum orientale L. (Blechnaceae);	Leaves	Intestinal wound, boils	water of that boiling leaf given to the patient	The leaves juice, 2-3 drops is put as ear drops in case of severe pain. Rhizome is used to cure the intestinal wounds. Fresh fronds are used as poultice for boils and also used for urinary bladder complaints	Spicy food and alcohol are restricted
45	Buchanania lanzan Spreng. (Anacardiaceae); Chara	Bark, leaves, fruits	Constipation , wounds	all are mixed together and taken in water	Infusion of the bark is administered (10 ml) to cure mouth-sores. Paste of the tender leaves and flower buds is given as a laxative for the treatment of chronic constipation. The ripe fruits are eaten as tonic for strength. the root and bark made in to paste	Spicy food and alcohol are restricted

Medicinal Plants Used By Oram

Sl. No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food and Other Restrictions
56	Citrus limon (L.) burm.f. (rutaceae); lembu	Fruits	diarrhea	Crushed and warm in heat	Fruit is crushed and warmed slightly and applied to cure diarrhea	Spicy food and alcohol are restricted
57	Clausena excavate Burm. F. (Rutaceae); Agnijihal	Root , leaves	dysentery	Mixed together and taken orally	Roots are mixed the bark of hollarrhena pubescences, anogeisus latifolia and pterocarpus marsupium and prepared pill. One pill is taken orally in empty stomach for three days against dysentery in body pain.	Spicy food and alcohol are restricted
58	Cleistnthus collinus (Roxb.) Benth ex Hook. F. (Euphorbiace), karada'	Shoot	Foot injury	Paste is prepared by grinding it	Young shoot paste is applied on foot to get relief from injury caused by sand.	No such restrictions
59	Clerodendrum serratum (L.) Moon	Leaves	septicemia	Paste is prepared by grinding the leaves	Paste of leaves applied locally for treatment of septicemia, worms and foot diseases.	No such restrictions

	(Verbenaceae); samarkond					
67	Curcuma longa L (zingiberaceae) haldi	Rhizome	Eye cataract	Powder is prepared from the rhizome	Rhizome and black pepper powder is applied in case of cataract of lens	No such restrictions
68	Cuscuta reflexa Roxb. (convolvulaceae), Nirmuli	Stem	Malaria	Paste is prepared	About 10g of stem and seven black pepper seed is pasted and taken with water to cure fever and malaria	No such restrictions
69	Cyathea gigantea (Wall. Ex. Hook.) Holtum. (hymenophyllaceae)	Rhizome	White discharge	Taken orally to the fresh rhizomes	Fresh rhizome 10 g mixed 1g black pepper seeds (piper nigrum) are powdered and taken orally with milk twice a day for 1 week in empty stomach against white discharge	No such restrictions
70	Cymbopogon flexuosus (nees ex steud.) wats	Leaves	Cough and cold	Taken by the water of the leaf by boiling it	5-6 drops of leaves juice with cow butter is taken early morning in empty stomach to cure cough and cold	No such restrictions
1	Bhuin Limba	complete bhuin limba tree	malaria	making powder after drying the tree	TABLETS adult 3 tablets child 1/2 per day	
2	Harida and Bahada	seed			making tablets by drying both of the seeds	
3	sunari tree	Root	blood dysentery	by grinding	no specific time in form of tablets	No food restrictions
4	Nali patal garuda	Root	paralysis	cut off the 1 inch of root after drying and preparing medicine from that by grinding	2 tablets after meal	No such restrictions
5	neem oil	Fruit	hookworm	oil is extracted from seed and applied	any time	No such restrictions
6	Nali kain, Rasi juice, Mandar flower, and Ostha Bark	Juice, flower, bark	irregularity in menstrual cycle	all are mixed together and taken in water	before eating 3-4 spoon	to balance mental condition
157	Oroxylum indicum (L.) Kurz, Bignoniaceae, Ringevenam (K.)	Bark	Appetite	Bark is cut in to several pieces and taken orally	One glassful decoction of bark is taken orally in the morning for 3 days to stimulate appetite.	No such restrictions
158	Pterocarpus marsupium Roxb. Fabaceae, Piasal (Or.)	Bark	Blood dysentery	Bark is taken orally by making it into several shot pieces	Paste is made with bark of above plant pounded with Mangifera indica (bark), shorea robusta (bark) and apondias pinnata (bark) of 2 inch size each and administered once in a day.	No such restrictions

Medicinal Plants Used By Paudi Bhuyan :

Sl. No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food Restrictions
--------	--------------------	-------------------------	----------	---------------------	------------------------	-------------------

55	Cissus quadrangularis L. (Vitaceae);	Stem	Conception	Paste is prepared	Paste of the stem and banana flower is applied to the head of the women for ten days or so for preventing conception.	N re n
71	Cynodon dactylon (L.) pers. (Poaceae); Dubaghasa	Leaves	Diarrhea	Taken by the water of the leaf by boiling it	Leaves juice with sugar candy is prescribed to small kids to cure diarrhea and vomiting. Plant powder is taken with honey in the morning in empty stomach to cure bile.	S f a re
72	Cyperus rotundus (L.) pers. (poaceae); Mutha	Rhizome	Acidity	Powder is prepared from the rhizome	One tea spoon of dried rhizome powder is taken every day to cure acidity and other stomach diseases.	S an is
73	Dalbergia latifolia Roxb. (Fabaceae); sissoo	heartwood	Skin diseases	Oil extracted from it	Oil extracts from firing the heart wood pieces cures skin diseases.	N re
78	Erycibe paniculata Roxb. (convolvulaceae); 'chain katho'.	Bark	Fever, cholera	Powder is prepared by drying it	Bark is chewed two times a day for two days in fever. The bark juice is given in cholera.	N re
84	Indigofera cassioides Rottl.ex DC. (Fabaceae); 'Hemsagar'	Root, flowers	Dysentery	By dusting the root given to the patient	Flowers and roots are mixed and ground in to paste with water and given to cure of dysentery. Roots with bark juice of Careya arborea are given as a remedy for blood dysentery.	N re
91	Mangifera indica L. (Anacardiaceae); 'Amba'	Bark	Blood dysentery	Paste is made from it and applied directly	Stem bark decoction (15ml) is taken in empty stomach twice a day continuously for three days as a cure for blood dysentery and pasty mass of cotyledons is applied on heads as a cure for falling of hairs.	N re
	Bhuin Limba	Comple t bhuin limba tree	Malaria	Making powder after drying the tree	TABLETS adult 3 tablets child 1/2 per day	
2	Harida and Bahada	Seed			making tablets by drying both of the seeds	
3	sunari tree	Root	blood dysentery	by grinding	no specific time in form of tablets	N re
4	Nali patal garuda	Root	paralysis	Cutoff the 1 inch of root after drying and preparing medicine from that by grinding	2 tablets after meal	N re
5	neem oil	Fruit	Hookworm	Oil is extracted from seed and applied	any time	N re
6	Nali kain, Rasi juice, Mandar flower, and Osth Bark	Juice, Flower, Bark	Irregularity in menstrual cycle	All are mixed together and taken in water	before eating 3-4 spoon	to th m co
31	Aleo vera L. (liliaceae); gheekuanri	leaves	White patches	Water of that being leaf given to the patient	The fresh leaves juice is applied on the affected area once a day during morning hours until the white patches on face disappear.	N re
36	Argyria nervosa (burm.f.) boj. (convolvulaceae), Budhadaraka'	leaves	Ulcers	Paste is prepared after deeping in cold water whole night	The leaves used as poultice applied in chronic ulcers.	N re

Medicinal plants used by Gadaba:						
Sl.No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food and Other Restriction
1	karanga leaf, Chitamula leaf	Leafs	Eczema, skin irriatation	grinding together and applied	Taken in the morning in semi liquid form	no
2	V	Whole Palnt	Fever	Whole plant is dried and then paste is prepared from it	Two spoonful decoction of whole plant is taken orally twice a day for three days to cure fever. Seed paste is used for abortion.	No such restriction
3	Acacia leucophloea (Roxb.) wild (Mimosaceae); Kanta siriso	Bark	Diarrhea	Bark is deep with cool water and taken directly	Bark is deep for full night cold water and decoction is given in the morning to cure diarrhea. Bark decoction along with hot ghee given to child to cure dental carries.	Spicy food and alcohol is restricted
4	Achyranthes aspera L. (amaranthaceae); apamaranga	Root	Dysentery	cutoff the 1 inch of root after drying and praparing medicine from that by grinding	25g of root juice with 50g of sugar in water is taken twice a day until relief from dysentery. Root is boiled in water and decoction is given orally with honey to pregnant mothers. This help in quick delivery of child.	Spicy food and alcohol is restricted
5	Black cumin	Seeds	Arsh	half fried and non fried black cumin mixed and then taken with water	Taken with water(3gm water)	No
6	Gangasiuli	Leaf	threet and malaria	water of that boing leaf given to the patient	4 TIMES PER DAY	no
4	Dudukum	Root	intestinal	by dusting the root	3 times per day	No

			problem	given to the patient		
7	Bear	Giri	Brain malaria	first mustard oil is hot then the Dry GIRI of bear put in that then given to the patient to eat	2 spoon in empty stomach for adult and 1 spoon for childs	physical exvcercise needed
8	Chake (frog that live inside home)	complete frog	intestinal problem, skin diseases	first mustard oil is hot then the boil frog put in that then given to the patient to apply on body, and those have intestinal proble	2 spoon in empty stomach for adult and 1 spoon for childs	physical exvcercise needed
9	Vernonia anthelmintica.	Leaf	Tootharch	A few mature but green leaves are pressed with the palm and thumb.	The pressed mass is put at the root of the affected tooth.	No such restriction

Medicinal plants used by Chuktia Bhunjia:

Sl.No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food and Other Restriction
1	Karanga leaf, Chitamula leaf	Leafs	Eczema, skin irriatation	grinding together and applied	Taken in the morning in semi liquid form	no
2	Black cumin	Seeds	Arsh	half fried and non fried black cumin mixed and then taken with water	Taken with water(3gm water)	No
3	Gangasiuli	Leaf	threet and malaria	water of that boing leaf given to the patient	4 TIMES PER DAY	no
4	Dudukum	Root	intestinal problem	by dusting the root given to the patient	3 times per day	No
5	Bear	Giri	Brain malaria	First mustard oil is hot then the Dry GIRI of bear put in that then given to the patient to eat	2 spoon in empty stomach for adult and 1 spoon for childs	Physical exvcercise needed
6	Chake (frog that live inside home)	Complete Frog	intestinal problem, skin diseases	First mustard oil is hot then the boil frog put in that then given to	2 spoon in empty stomach for adult and 1 spoon for	Physical exvcercise needed

				the patient to apply on body, and those have intestinal proble	childs	
9	(a)Diospyresme lanoxylon. (b) psidium guyava, linn (c) Punica granatum	Diuretic, Ophthalmic & Styptic.	Loose motion with blood & mucos.	A few leaves of kendu is ground along with a tender guava and a tender punica. Granatum into a thick paste.	The paste is whipped with water to a thinner consistency. Half a cup of it is taken orally three times a day (morning, noon & evening).	Not to take oily and spicy foods
10	Racencus communis (castor).	Leaf	Hydrosil	The castor leaf is plced before live charcoal to make it wither. Castor oil is applied on it . it is then put on the swollen scrotum.	Surface application. When the leaf is not put patient is advise to wear lion cloth tightly.	No such restriction
11	Banyan (Ficus bengalensis)	Latex	Boils	The latex is derived from the tree and used fresh.	It is applied quickly on the boil & covered with a paper.	No such restriction
12	Terminalichebula.		cough	The seed is roasted and powered.	About quarter a palmful of the power is chewed and taken orally during night.	No such restriction

Medicinal plants used by Gond:

Sl. No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration	Food and Restriction
79	Gmelina arborea Roxb. (Verbenaceae); Gambhari	Root	Wounds	by dusting the root given to the patient	Decoction of root bark is used for washing and healing of septic wounds.	No such restriction
80	Helicteres isora	Fruits	Orthopedic	Taken by mixing it	Fruits and raw turmeric are added in	Alcohol

	L (Sterculiaceae); 'Murmuria'			with turmeric	mustard oil and kept for a few days. This oil is applied to the defective limbs of the children.	taken
81	Hemionitis arifolia (Burm.f.) Moore. (Hemionitidace ae)	Root	Hypertension	by dusting the root given to the patient	About 10 g of root powder is taken orally with water in empty stomach twice a 822day for treatment of hypertension.	Alcohol taken
82	Hibiscus rosa- sinensis L. (Malvaceae); Mandar	Twig	Dysentery	Paste is prepared	Twigs and sugar are made in to a paste and given as a remedy for dysentery.	Alcohol taken
83	Holarrhena pubescens (buch.- ham.) Wall. Ex G. Don (Apocynaceae); 'Kherwa'	Stem bark	Dysentery , fever	Mix together and paste is prepared	Stem bark infusion with honey In the ratio of 3:1 is taken once a day in empty stomach for cure of dysentery. Bark of the plant and black pepper are powdered together and orally taken against malarial fever.	No such restricti
1	karanga leaf, Chitamula leaf	Leafs	Eczema, skin irriatation	grinding together and applied	Taken in the morning in semi liquid form	no
2	Black cumin	Seeds	Arsh	half fried and non fried black cumin mixed and then taken with water	Taken with water(3gm water)	No
3	Gangasiuli	Leaf	threet and malaria	water of that boing leaf given to the patient	4 TIMES PER DAY	no
4	Dudukum	Root	intestinal problem	by dusting the root given to the patient	3 times per day	No
5	Bear	Giri	Brain malaria	first mustard oil is hot then the Dry GIRI of bear put in that then given to the patient to eat	2 spoon in empty stomach for adult and 1 spoon for childs	physical exvcerc needed
6	Chake (frog that live inside home)	Complete Frog	intestinal problem, skin diseases	first mustard oil is hot then the boil frog put in that then given to the patient to apply on body, and those have intestinal proble	2 spoon in empty stomach for adult and 1 spoon for childs	physical exvcerc needed
5	tamarindus indicus, Linn. chyrantheassper a	(a) Root & flowers. (b) bark. (c) root	Difficult in delivering the child.	The root, bark and flower of same volume are mixed together and grinded to a paste.	The patient is made to inhale the paste. A little of it is applied on the forehead and a little is applied on the lids of vagina.	No such restricti
6	Diospyros melannoxy on	Tender leaf	Blood dyse ntery.	Equal quantities of tender kendu leaves	Half a cup of the juice is taken twice.	No such restricti






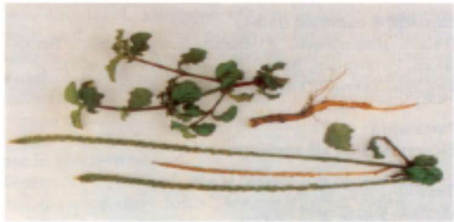
	Roxb.			& Amarpoi leaves are grinded and the juice is extracted.		
--	-------	--	--	--	--	--


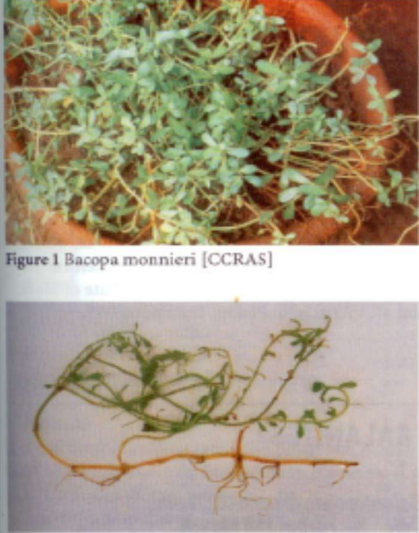
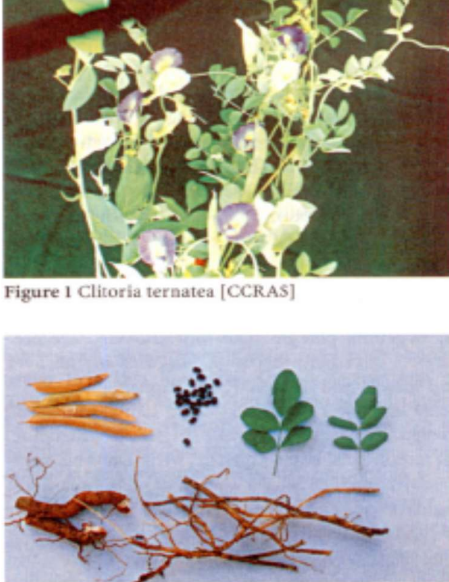
Details of Medicines practiced by Healers(Common to all Tribes)





Sl no	Sl.No	Name of the Plants	Part of the Plants Used	Diseases	Mode of Preparation	Mode of Administration
1	Buntame	Leaf	Burn wound	Fresh coconut shell is burnt to ooze oil. It is then rubbed with the leaf of Buntame. The paste like mass is used as medicine.	The wound is cleaned with a clean cloth to remove dead tissues. The paste is applied on it applied on it for two to three days.	No sugar and alcohol restricted
2	Tasingbilei	Root	Intestinal problem	The root is chewed raw & the juice derived is swallowed. The fibrous residue is applied on the stomach.	Oral administration and surface application twice a day in the morning & evening after food (may not be the principal meal.)	Spicy food and alcohol restricted
3	Mimosapudica	Leaf	Snakebite	Handfuls of leaves are grinded with sugar and diluted with sugar and diluted with water to obtain a thin consistency.	The fluid is taken orally once.	No sugar and alcohol restricted
20	(a) mangifera indica (b) Eugenia jambolana	Leaf	Malaria	Equal quantities of mango and eugenia jambolana leaves are boiled and the patient is allowed to inhale the vapour along with the smoke of burning sal resin.	Inhalation of vapour and smoke. A little of water is sprinkled over the head of the patient.	No sugar and alcohol restricted
25	Acorus calamus L. (Araceae); 'Bacha'	Rhizome	Diarrhea	Paste is prepared from it	The underground rhizome paste used to cure severe diarrhea.	Spicy food and alcohol restricted
28	Adiantum philippense L. (Adiantaceae); 'Dodhali'	Leaves	Indigestion	Fresh leafs are taken directly	2g of fresh leaf paste is taken orally on empty stomach twice a day for 10 days for immediate relief from indigestion.	Spicy food and alcohol restricted
29	Adhatoda vasica Nees. (acanthaceae)	Piles	Leaves, root	By mixing together	5 pieces of leaf paste with 2-3 pieces of roots of abrus precatorius and 3-4 pieces of roots achyranthes aspera is mixed and the grinded pasty mass taken twice a day after meal for twenty days as cure for the treatment of piles.	Spicy food and alcohol restricted
33	Angiopteris evecta Forst.	Dysentery,	Leaves	water of that being leaf given to the patient	Leaves extract is used in the treatment of dysentery. Spores are effective in the	No sugar and alcohol restricted


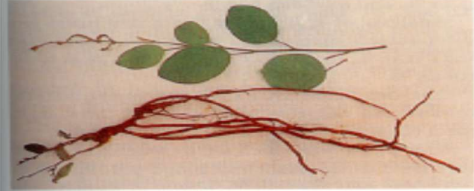


	Hoff. (Angiopteridaceae)	leprosy			treatment of leprosy and other skin diseases.	
34	Anogeissus lactifolia (Roxb.) Wall. Ex Bedd. (combretaceae); Dharua'	Diarrhea	bark	Powder is prepared from the bark	Bark powder is administered twice or twice daily in doses of about 5gm for treatment of diarrhea.	No such restriction
35	Argemone mexicana L. (papaveraceae); kantakusuma'	Eczema	Leaves, seeds	water of that boiling leaf and seed oil given to the patient	Seed paste (3 g) mixed with seed oil of Madhuca longifolia (1ml) is applied fifteen days continuously on skin for the cure of eczema. The yellow juice is applied to stop bleeding from cuts and wounds.	No such restriction
37	Asplenium indicum sledge. Bull. (aspleniaceae)	Gonorrhoea	Rhizome	Paste is prepared	5 g fresh rhizome paste mixed with 10 ml milk is administered thrice a day for 7 days for treatment of gonorrhoea.	No such restriction
38	Asplenium laciniatum D. Don. Prod. (Aspleniaceae)	leucorrhoea	Root	Root paste is prepared by grinding and taken with cow urine	About 10 g of fresh root paste along with 100 ml of cow urine is taken orally in empty stomach once in the morning for fifteen days to have relief from leucorrhoea.	No such restriction
40	Azadirachta indica A. Juss. (meliaceae); Nimba	Diabetes, skin disease	Leaf, young shoot	All are mixed together	Aqueous extract of leaves (15 ml) is taken once a day in empty stomach continuously one month for treatment of diabetes. Leaves extract is given as a blood purifier and for removal of intestinal worms. Leaf paste is applied on skin disease and in small pox. Young hoots are used as tooth brush.	No such restriction
41	Bacopa monnieri (L.) Penn (scrophulariaceae); Brahmi'	Memory power	Leaves	Paste is prepared from leafs	Leaves paste is taken in empty stomach so that they become remain young. Leaf juice is used to increase of memory power.	No such restriction
46	Butea monosperma (Lam.) Taub. (Fabaceae); palas	Tuberculosis, piles	Root, latex, seed.	All are mixed together and grinding	Roots are used in tuberculosis. Pastes of seeds are applied on skin diseases. Latex mixed with honey cures piles and stomach trouble.	No such restriction
47	Calendula officinalis L. (Asteraceae), Gendu	Cut	Leaves	water of that boiling leaf given to the patient	Leaves are mixed with lime and form a paste and applied to the affected areas and insect bites.	No such restriction
103	Phyllanthus emblica L. (Euphorbiaceae); 'Anola'	Eye problem	Leave	Taken by the water of the leaf by boiling	Fresh leaves juice (2ml) with diluted solution of common salt (1ml) used as a drop in eyes for improving weak eyesight.	sour, n items, alcohol drink
12	Syzygium	Asthma	Seed	Oil is extracted, and	Seed powdered is mixed with juice of	sour, n







2	cumini(L.) Skeels (Myrtaceae), 'Jamu'	, jaundice		powder is also made	Asperagus and Achyranthus is taken with sugar candy twice a day to cure asthma and jaundice.	items, alcohol drink
12 3	Tectaria cictaria (L.) Copel. Philipp. (Dryopteridaceae)	Eczema, scabies	Leave	Powder is prepared after dry it	Seed powdered is mixed with fresh leaves of Azadirachta indica in equal proportion (5.5) by adding little mustard oil and is thoroughly grounded and applied 2-3 times per day against eczema and scabies.	No such restricti
12 4	Tephosia purpurea (L.) Pers. (Fabaceae); 'Gileri'	Post natal complai nts	Leave	Taken directly fresh leafs	Decoction of leaf (5ml) mixed with honey (2ml) given to women twice a day continuously for one month against post natal complications.	No such restricti
15 2	Gloriosa superb L. Liliaceae, Panchagulia (Or.)	Rheuma tism	Tuber	Paste is prepared from it and taken regularly	Paste is prepared and mixed with the paste of piper longum and is administered once a day regularly for a month for cure of rheumatism.	SOUR, VEG IT ALCOH DRINK
15 6	Nyctanthes arbor- tristis L., Oleaceae, Chirat, Saaron (K.)	Cough & cold	Leaves	Young leafs taken orally	Young leaves of zingiber officinale, piper triocum (root) are taken together in equal quantities, boiled with water and taken twice a day for three days.	No such restricti
16 8	Casearia elliptica willd. (flacocutiaceae)	Fish poison	Leaves	Fresh leafs are taken twice a day	The milky juice, mixed with the water and used as fish poison.	sour, no items, a drink
17 2	Cassia fistula linn. Costus specios (koenig)sm. (zingiberaceae)		Leaves	Leaf paste is prepared by greinding and applied	Decoction of leaves applied on the affected area.	sour, no items, a drink
17 3	Butea monosperma (lam.) Taub. (Fabaceae)	Liver disorde r	Leaves	Leaf juice is extracted and taken with water	A glass of leaf extract taken orally for 2 days	sour, n items, alcohol drink


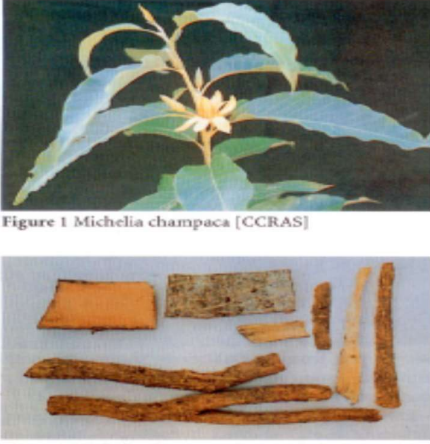

Details list of medicinal plants used by the healers		
Sl. No	Photos of the plant	Name
1	 <p>Figure 2 Acacia catechu [CCRAS]</p>  <p>Figure 3 Acacia catechu [CCRAS]</p>	<p>Botanical Name: Acacia catechu (Lf.) willd. English name: cutch, Catechu. Odia Name : Khaira</p>
2	 <p>Figure 4 Acacia leucophloea [CCRAS]</p>  <p>Figure 5 Acacia leucophloea [CCRAS]</p>	<p>Botanical Name: Acacia leucophloea Willd. English Name: White Babool. Odia Name : KGoira</p>
3	 <p>Figure 1 Achyranthes aspera</p>  <p>Figure 2 Achyranthes aspera</p>	<p>Botanical Name: achyranthus aspera Linn. Odia Name : Apanargh</p>






<p>4</p>		<p>Botanical Name: Jatropha gossypifolia</p> <p>Odia Name : Bai Gaba</p>
<p>5</p>	 <p>Figure 1 Bacopa monnieri [CCRAS]</p> <p>Figure 2 Bacopa monnieri [CCRAS]</p>	<p>Botanical name: Acorus monnieri (Linn.) Pennell.</p> <p>English Name: Indian Penny-wart</p> <p>Odia Name : Brahmi</p>
<p>6</p>	 <p>Figure 1 Clitoria ternatea [CCRAS]</p> <p>Figure 2 Clitoria ternatea [CCRAS]</p>	<p>Botanical Name: clitoria tematea Linn.</p> <p>English name : Butterfly pea</p>






7	 <p>Figure 1 Commiphora wightii [CCRAS]</p>  <p>Figure 2 Commiphora wightii [CCRAS]</p>	<p>Botanical name: commiphora wightii English name: Indian bdellium, gum gugul</p>
8	 <p>Figure 1 Datura metel [CCRAS]</p>  <p>Figure 2 Datura metel [CCRAS]</p>	<p>Botanical Name: Datura metel Linn. English Name: Datura</p>




<p>9</p>	 <p>Figure 1 <i>Desmodium gangeticum</i> [CCRAS]</p>  <p>Figure 2 <i>Desmodium gangeticum</i> [CCRAS]</p>	<p>Botanical Name: <i>Desmodium gangeticum</i></p>
<p>10</p>	 <p>Figure 3 <i>Ficus racemosa</i> [CCRAS]</p>  <p>Figure 4 <i>Ficus racemosa</i> [CCRAS]</p>	<p>Botanical Name : <i>Ficus racemosa</i> Linn. English : Cluster fig tree. Odia Name : Dimiri</p>




<p>11</p>	 <p>Figure 5 Ficus religiosa [CCRAS]</p>  <p>Figure 6 Ficus religiosa [CCRAS]</p>	<p>Botanical Name: Ficus religiosa Linn. English name: Bot tree. Peeppal. Ayurvedic name : Ashvattha. Odia Name : Pipal</p>
<p>12</p>	 <p>Figure 1 Glycyrrhiza glabra [CCRAS]</p>  <p>Figure 2 Glycyrrhiza glabra [CCRAS]</p>	<p>Botanical name : Glycyrrhiza glabra Linn. Odia Name : Zati madhu</p>
<p>13</p>	 	<p>Botanical Name: Hiptage benghalensis Odia Name : Madhabi lata</p>




<p>14</p>	 <p>Figure 1 Mesua ferrea [CCRAS]</p>	<p>Botanical Name: Meusa ferrea Odia Name : Naga keshara</p>
<p>15</p>	 <p>Figure 1 Michelia champaca [CCRAS]</p> <p>Figure 2 Michelia champaca [CCRAS]</p>	<p>Botanical Name: Michelia champaca Linn. English: Golden champa Odia Name : Champa</p>
<p>16</p>	 <p>Figure 1 Psoralea corylifolia [CCRAS]</p>	<p>Botanical Name: Psoralea corylifolia Linn. English Name: Purple flea- bane. Odia Name : Bakuchi</p>




		
17	 <p>Figure 1 Santalum album [CCRAS]</p>  <p>Figure 2 Santalum album [CCRAS]</p>	<p>Botanical Name: Santalum album Linn. English name: Sandalwood. Odia Name : Sandal</p>
18	 <p>Figure 3 Terminalia bellirica [CCRAS]</p>  <p>Figure 4 Terminalia bellirica [CCRAS]</p>	<p>Botanical Name : Terminalia bellirica. English name: Belliric myrobalan. Odia Name : Bahada</p>

19	 <p>Figure 1 <i>Tinospora cordifolia</i> [CCRAS]</p>  <p>Figure 2 <i>Tinospora cordifolia</i> [CCRAS]</p>	<p>Botanical Name: <i>Tinospora cordifolia</i> (willd). Miers.exHk.f.Thoms. English name: Gulancha <i>Tinospora</i> Odia Name : Guluchi</p>
20	 <p>Figure 1 <i>Withania somnifera</i> [CCRAS]</p>  <p>Figure 2 <i>Withania somnifera</i> [CCRAS]</p>	<p>Botanical name: <i>Withania ashwagandha</i> Kaul ,<i>Winthania somnifera</i> (Linn.) Dunal. Ayurvedic : ashwagandha. English name: winter Cherry. Odia Name : Aswa gandha</p>
21		<p>Botanical Name : <i>Asparagus adscendens</i> Rox Odia Name : Satta muli</p>
22		<p>Botanical name: <i>Rauwolfia serpentine</i></p>

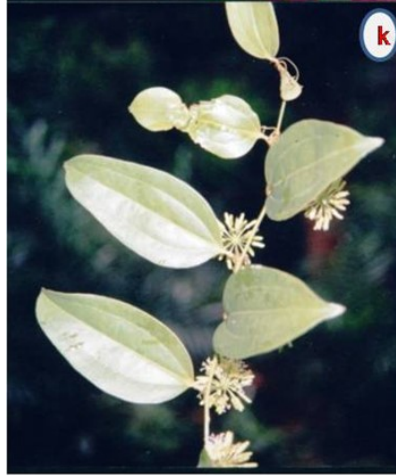
		<p>Benth, ex. Kurtz. Odia Name : Patala garuda</p>
23		<p>Botanical Name: Mimosa pudica Linn. Odia Name : Lajakuli lata</p>
24		<p>Botanical Name : Holarrhena antidysenteria wall. Odia Name : Pitta Kurua</p>

25		<p>Botanical Name: Azadirachta indica Odia Name : Limba</p>
26		<p>Botanical Name: Mangifera indica Odia Name : Amba</p>
27		<p>Botanical Name: Alstonia scholaris Odia Name : Amba</p>

28	 A photograph of a Pongamia pinnata plant. The image shows several green, pinnately compound leaves with multiple leaflets. To the right, there is a long, upright inflorescence (raceme) with many small, light-colored flowers. A small circular icon with the letter 'f' is in the top right corner of the image.	<p>Botanical Name: Pongamia pinnata Odia Name : Karanja</p>
29	 A photograph of a Pavetta hispidula plant. The image shows a stem with several large, ovate, green leaves. At the top of the stem, there is a cluster of small, white, tubular flowers. A small circular icon with the letter 'e' is in the top right corner of the image.	<p>Botanical Name : Pavetta hispidula</p>
30	 A photograph of a Commelina benghalensis plant. The image shows a stem with several bright green, lanceolate leaves. A small, white flower is visible at the top of the stem. A small circular icon with the letter 'b' is in the top right corner of the image.	<p>Botanical Name: Commelina benghalensis Odia Name : Tulsi</p>
31		

		<p>Botanical Name: Anacardium occidentale</p>
32		<p>Botanical Name : Calotropis gigantea Odia Name : Arakha</p>
33		<p>Botanical name: Eupatorium odoratum</p>

34



Botanical Name: smilax gossypifolia

35



Botanical Name: Didymocarpus humboldtina

Annexure V: Data collection Schedules

GOVERNMENT OF ODISHA
SC & ST RESEARCH AND TRAINING INSTITUTE,
CRPF Square, Unit-VIII, Bhubaneswar-751003
Schedule for “Traditional Medicine and Healing Practices among selected ST
Communities in Odisha”.

Schedule No-I
Village Schedule.

I. Identification:

(a)	Name of the Village / hamlet	
(b)	Name of the GP	
(c)	Name of the Block	
(d)	Name of the Tahsil	
(e)	Name of the P.S.	
(f)	Name of the ITDA	
(g)	Name of the Subdivision	
(h)	Name of the District	

II. Distance from the Villages (in km)

a)	District Head quarters:	
b)	ITDA Headquarters :	
c)	Sub Divisional Head quarters:	
d)	Block Head quarters:	
e)	Gram Panchayat Head quarters:	

III. Topography

a)	Hill top	
b)	Hill Slope	
c)	Plains	
d)	Undulating plains	
e)	Any other	

IV. Ecology & Climate:

VIII. Settlement Pattern:

(a) Number of Hamlets and their names

1.
2.
3.
4.
5.
(b) The settlement pattern is-
1. Agglomerated
2. Dispersed
3. Isolated
4. Lineal
5. Irregular in structure
6. Any other (specify)

(c) Housing

a) Pucca	
b) Kutchra	
c) Thatched Roof	
d) Tiled Roof	
e) RCC Roof	
f) IAY house	

*HHs- Households

(d) Communication

(1) The village is accessible by
(a) Bridle Path
(b) Foot Path
(c) Jeep able road
(d) Kutchra road
(e) Pucca road
(f) Canal
(g) River

IX . Economy & Livelihood

Sl No	Name of the sectors	Percentage of engagement
1.	Agriculture/Horticulture	
2.	Wage earning	
3.	Service Sector	
4.	Business Sector	
5.	Animal Husbandry	
6.	Forest Collections	
7.	Any other (Specify)	

X. Agriculture & Allied Sectors

Sl. No	Agriculture Institutions	Distances in KM
1	Agriculture market yard	
2	Horticulture Nursery	
3	Agriculture/Horticulture Farm	
4	V.A.W Centre	
5	Forest Beat House	
6	Forest Range office	
7	Livestock Aid Centre	
8	Veterinary Dispensary	
9	Availability of Agricultural inputs (a) Seeds/ Fertilizers/ Pesticides shop	
10	Any Other (specify)	

XI. Industry Sector

Sl. No	i) Small Scale industry	No	Distance in KM
1	Rice mill		
2	Oil mill		
3	Carpentry unit		
4	Brass & Bell metal unit		
5	Blacksmith unit		
6	Saw mill		
7	Others		

Sl. No	ii) Cottage Industry	No	Distance in KM
1	Pottery & Terracotta		
2	Khali making		
3	DWCRA Unit		

4	Self Help Group (SHG)		
5	Mission Sakti Group		
6	Coir Work		
7	Leather Work		
8	Bamboo Work		
9	Cane Work		
10	Mattress Work		
11	Badi Work		
12	Knitting Work		
13	Sabai Grass Unit		
14	Lac Work		
15	Bee Keeping		
16	Paddy Craft		
17	Textile		
18	Tailoring		
19	Household Provisions (Achara/ Papad/ Badi etc.)		
20	Others, Specify		

XII. Livestock owned

	Livestock owned	No.
	Cattle	
	Buffalo	
	Goat	
	Sheep	
	Pigs	
	Poultry	
	Others	

XIII. Electrification

(A) Whether the village is electrified? Yes/ No. If yes where?

(a) Street light	
(b) Domestic power supply	
(c) Irrigation	
(d) Cottage industry	
(e) Community Hall	
(f) Educational Institutions	

(B)

Type of Lighting if electricity is not available	Kerosene lamp
	Solar energy

	Generator/ battery
	Any Other

(C)

Fuel used for cooking	Item	No. of HHs using
	Fire wood/ wood charcoal	
	Kerosene	
	LPG Gas	
	Electric Power	
	Paddy husk/ Farm waters	
	Cowdung Cakes	
	Any other (specify)	

XIV. (a) Health Care Facilities in the locality

Sl.No	Item	Distance in KM
1	Health Sub-Centre	
2	Primary Health Centre (PHC)	
3	Community Health Centre	
4	ASHA	
5	Sub-Divisional Hospital	
6	Dist. Hq. Hospital	
7	Ayurvedic Dispensary	
8	Homeopathic Dispensary	
9	Private Clinic/ Doctor	
10	Magico Religious Practitioner	
11	Traditional Medicineman	
12	Mobile Clinic/Mobile Health Unit	
13	Medicine Shop	

(b) Sanitation

Type of Toilet used by the villagers		
	Pour flush	
	Pit	
	Water Sealed	
	Manually cleaned	
	No toilet	
	Any Other	

XV. Drinking water supply

Sl. No	Source	No. present	Present condition		Distance
			Functioning through out the year	Not functioning	
1	Pipe water				
2	Well (Protected)/covered				
3	Unprotected well				
4	Tube well				
5	Ponds/Tanks				
6	Spring/ River/ Nallah				
7	Cistern				
8	Tap within the Premises				
9	Tap outside the Premises				

XVI. Village Institutions:

Sl. No	Items	Yes-1/ No-2
1.	Temple/ Shrine	
2.	Church	
3.	Mosque	
4.	Dormitory	
5.	Community Centre/ Youth Club	
6.	Mahila Mandal/ Samiti	
7.	N.G.O	
8.	Bal Bikash Kendra	
9.	Anganwadi centre (ICDS)	
10.	SHG	

XVII. Other Infrastructures

Sl. No	Infrastructures/ Facilities Available	Distance from your house	Time taken from your house to reach this closet facility (Minutes)
1	Bus Stop		
2	Railway Station		
3	Telephone Booth		
4	Pre Primary School/ Balwadi		
5	Primary School		
6	Secondary School		
7	Higher Secondary School/ Junior College		
8	Non-formal Education Centers/ Adult Literacy Center		
9	Post Office		
10	Fair Price Shop including PDS		

11	Cooperative Credit Society		
12	Commercial Bank		
13	Vocational Training Centre		
14	Revenue Inspector Office/ Forest Office		
15	Any other (specify)		

XVIII. General Information

1	Any natural disaster in last 3 years	Yes	
		No	
2	If yes, what types	Flood	
		Drought	
		Cyclone	
		Earthquake	
		Lightening	
		Attack by wild animals	
		Others (Specify)	

XIX. Inter-community Relationship:

Sl No	Questions	Yes/No
1	Social hierarchy of communities in the village?	
2.	Who are the higher ranked communities and do they observe social distance from which lower ranked communities in matter of exchange of cooked food and water inter-ding, house entry etc? Specify in detail.	
3.	Is there a feeling of unity & cooperation between communities?	Yes/No
4.	Do the communities help each other at the time of distress?	Yes/No
5	Is there any detection of distrust among the communities? If yes, Specify the reason.	Yes/No

6	Do the people belonging to different communities share their joys & sorrows on certain occasions? If no, Specify the reason.	Yes/No

XX. Media Available

1.	News paper	
2.	Radio	
3.	Television	
4.	Internet	
5.	Any other (specify)	

XXI. Name the village elites

SI No	Name/ Designation/ Occupation/ Class	Traditional / Modern/ Elected/ Nominated

XXII. Is there any NGO working in the village?

1. Name

2. Functionaries (Name, Designation, Duties & Responsibilities)

3. Details of the work of NGOs(Use Additional sheet if required)

Full Signature of the Investigator _____

Date of Visit

--	--

 /

--	--

 /

2	0	1	3
---	---	---	---

GOVERNMENT OF ODISHA
SC & ST Research and Training Institute,
CRPF Square, Unit-VIII, Bhubaneswar-751003
Schedule for “Traditional Medicine and Healing Practices among selected ST
Communities in Odisha”.

Schedule No- II
Schedule for Traditional Healers/Magico-Religious Practitioners

SECTION-I (Identification)

Name of the Respondent	
Age	
Gender of the Respondent	
Village/Hamlet	
GP	
P.S.	
Block	
Subdivision	
District	
Phone/Contact Number	

SECTION-II (Profile of the healers)

* Particularly Vulnerable Tribal Group (PTG)

SL. No.	Questions		
201.	Position of the respondent in the community as a Traditional/ Medicine man	Traditional Leader/ Village headman	1
		Traditional Healer	2
		Magico Religious practitioner	3
		Disciple of Traditional Healer	4
		Disciple of Magico Religious practitioners	5
		Any other (specify)	6
202.	To which category do you belong	ST	1
		PTG*	2
203.	What is your educational qualification?	Illiterate	1
		Literate but no formal schooling	2
		Primary	3
		Upper Primary	4
		ME	5
		HSC	6
		+2 /Diploma level	7
		Graduation	8
		Post graduation	9
	Professional qualification	10	
204.	Annual income (Appox in Rs.)		

205.	As a Traditional Healer, have you gained prestigious position in your society?	Yes	1
		No	2

SECTION-III (Process of collection of Medicinal plants & Belief system :)

206	What is your perception of diseases and it's attributed causes?	Wrath of gods/goddesses/ Ancestors	1
		Evil eye/ Evil Spirit	2
		Curse	3
		Supernatural sanctions	4
		Others, specify	5
207	Is this healing practice your hereditary occupation?	Yes	1
		No	2
208	If yes, for how many generations you have been practicing?		
209	For How many years you are in this profession?		
210	Whether this profession is your primary or subsidiary means of livelihood?	Primary	1
		Subsidiary	2
211	Is the income generated from this profession substantial and adequate?	Yes	1
		No	2
212	If yes how much you are earning per annum? Cash/ kind		
213	Are you satisfied with your job? If No, why?	Satisfied	1
		Not satisfied	2
214	Have you got the spiritual skill or traditional skill or both?	Spiritual skill	1
		Traditional skill	2
		Both	3
215	Do you follow both the methods for treatment of disease?	Yes	1
		No	2
216	Where do people of your locality usually go for treatment of the common diseases?	Allopathic Doctor	1
		Homeopathy Doctor	2
		Ayurvedic Doctor	3
		Local Healers	4
		Magico Religious/ Traditional Healers	5

		Others(specify)	6
217	Whether you collect all the medicinal plants from the forest?	Yes	1
		No	2
218	What are the rare medicinal plant species? Name them.		
219	Is any medicinal plant /animal is revered as your totem?	Yes	1
		No	2
220	If yes, How do you collect and use them?		
221	Do you worship any deity/spirit/ give any sacrifice before collecting plants?	Yes	1
		No	2
222	Do you feel shortage of medicinal plant in your area?	Yes	1
		No	2
223	Which medicinal plant you grow and how do you harvest them?		
224	What is the area of plantation of the herbal medicinal plants, planted by you?		
225	What do you do after harvest?	Sell	1
		Preserve	2
		Process	3
		Any other	4
226	If yes, whether you sell within the locality or outside?	Within Locality	1
		Outside Locality	2
227	Do you depend on any other community for medicinal plants?	Yes	1
		No	2
228	Is there any taboo to restrict for dissemination of knowledge on herbal species or the place where they grow?	Yes	1
		No	2
229	Are you assisted by anybody during collection and processing of medicines? Mention no of assistant.	Collection	1
		Processing	2
		Both	3
		No	4
230	Do you follow any separate restrictions for male /female/ children during treatment?	Yes	1
		No	2
230(a)	If yes, why and what are they?		

231	Whether you prefer any specific time/day for treatment?	Morning	1
		Mid day	2
		Evening	3
		Mid Night	4
		Any other time	5
232	How many patients are treated by you during a month?		
233	Are you ever unsuccessful in your treatment?	Yes	1
		No	2
234	Do you expect and demand any remuneration from your patients? If yes, how much?	Yes	1
		No	2
235	If a patient is very poor and have no paying capacity, how do you deal with him?		
236	What are your areas of specialization? Specify the name of diseases.		
237	Have you ever referred any patient to the other traditional healer? If yes, why?	Yes	1
		No	2
238	Have you ever advised your patient to consult the Allopathic/ Homeopathic/ Ayurvedic doctor? If yes, why?	Yes	1
		No	2
239	Have you ever consulted any other community healer regarding treatment of a particular disease?	Yes	1
		No	2
239(a)	If yes, state the reason?		
240	When you are sick, have you ever gone to fellow	Yes	1

	healers of your own community or other community for your treatment?	No	2
241 (a)	Do your own community/ other community healers have ever come to you for their treatment when they are sick?	Yes	1
		No	2
241 (b)	If yes, name them and why?		

SECTION-IV (Learning and treatment process by Magico Religious Practitioners)

No.	Questions	Coding categories	Instruction
242	What is your perception of diseases and it's attributed causes?	Wrath of gods/goddesses/ Ancestor	1
		Evil eye/ Evil Spirit	2
		Curse	3
		Supernatural sanctions	4
		Others, specify	5
243	Is this healing practice your hereditary occupation?	Yes	1
		No	2
244	If yes, for how many generations you have been practicing?		
245	For How many years you are in this profession?		
246	Whether this profession is your primary or subsidiary means of livelihood?	Primary	1
		Subsidiary	2
247	Is the income generated from this profession substantial and adequate?	Yes	1
		No	2
248	If yes how much you are earning per annum? Cash/ kind		
249	Are you satisfied with your job? If No, why?	Satisfied	1
		Not satisfied	2
250	Have you got the spiritual skill or traditional skill or both?	Spiritual skill	1
		Traditional skill	2

		Both	3
251	Do you follow both the methods for treatment of disease?	Yes	1
		No	2
252	Which Gods /Goddesses/Spirits you worship most for your success in treatment of diseases?		
253	Do you sacrifice animals to appease God/ Goddesses/ spirit for successful treatment of disease?	Yes	1
		No	2
254	If yes, which animal? When and how?		
255	Whether you worship and sacrifice animals before /during /after the treatment of the patient and why?		
256	Is the Magico-religious treatment still popular in your area? If yes, why?	Yes	1
		No	2

SECTION-V Transmission of knowledge from a Healer to Disciple

257	No of disciples you have?	
258	Is there any teaching-learning or GURU- SISHYA tradition in your society?	Yes/No
259	How do you transmit your knowledge to your disciple? Explain.	
	(a) How to diagnoses	

	(b) How to gain the confidence of the patients		
	(c) How to choose the right medicine		
	(d) Massage, administration of medicine etc		
	(e) Maintenance of patients records & case history		
	(f) Behavioral ethics of the doctor		
260	What characteristics a person should possess to become a disciple?		
261	What remunerations you expect or demand from your disciples?		
262	If anybody do not have confidence on you, do you treat him/her?	Yes	1
		No	2
263	If Yes, is it effective?		

264	From whom you learned this trade? Name your Gurus. How you became their disciple and for how long you were trained by them and any tribute you paid to your Gurus?	
-----	--	--

SECTION-Constraints faced by Healers

No.	Questions	Coding categories	Instruction
265	Do you find it difficult to collect essential herbs & plants from jungle due to depletion of forest and restriction imposed by Govt. / Forest Deptt?	Yes	1
		No	2
266	If yes, Specify?		
267	Do you think this practice will provide sustainable livelihood to you in future?	Yes	1
		No	2
268	Have you marked any change in your practices in	Yes	1

	last few years?	No	2
269	Name the problems that you are facing/ going to face in the days to come?	No Patients	1
		Unsustainable livelihood	2
		Outdated knowledge	3
		Non availability of herbs	4
		Patients more interested towards other treatments	5
		Disbelieves in this treatment	6
		Others	7
270	In case of failure of your treatment, how the villagers or patients behave you?		

SECTION-VI (Training imparted and Initiatives taken by the Govt. for promotion of the traditional practice)

271	Any input given/taken to enhance your knowledge and practice	Training	1
		Workshop	2
		Seminar	3
		Others	4
272	In your opinion, should there be any scientific training or initiative by Govt. for the betterment of your profession? If yes, why? and tells us in detail.		

273	Please provide us in details if there is any Govt. Programme or Scheme you know for promoting your profession?		
274	Have you ever taken any step for your Publicity?	Yes	1
		No	2
275	If yes, What steps you have taken for your Publicity?		
276	Have you got any intellectual property right over your medicines and treatment of any disease / preparation of any medicine?	Yes	1
		No	2
277	Bring case studies of Traditional Medicine man & Magico Religious Practitioners on their healing practice in detail (Use separate sheet)		

Full signature of the Investigator: -

Date of Visit: / /

Details of the medicinal plants/ minerals/ animal parts used for the treatment of various diseases by Traditional Medicine Man

Name of the plant/ animal parts/ minerals used (Also bring local name)		Part of the plant/ Animals/minerals used	Name of the Disease/ Aliment for treatment of which it is used (local name)	Symptoms of disease	Process /Method of diagnosis of disease of medicine	Process of prep
2		3	4	5	6	7

Sl No	Other Ingredients used (if any) and their proportion (local name)	Time and season of preparation	Dosage form(Liquid/Semi liquid/tablet/powder etc)	Administration of Dose and interval	Process of preservat
1	8	9	10	11	12

Sl No	Cost of medicine prepared	Care of patients during period of treatment	No. of Patients treated		Post application care (MOST IMPORTANT)
		(a) Restriction of movement (b) Bed rest (c) Specific food restriction (d) Restriction in alcoholic drink (e) Other restrictions if any	Own community	Other community	
1	14	15	16	17	18

--	--	--	--	--	--	--

Details of the disease and their treatment (By Magico Religious Practitioners)

Name of the disease/Aliment	Indigenous typology (Peoples' classification and etiology)	Symptoms of disease	Process /Method of diagnosis	Name of the Flora/Fauna/ materials used if any	Name the Gods/ Goddess/ Ancestors/ Spirits associated with treatment	Ritual Practices appease the Goddess/ Ancestors (therapy)
2	3	4	5	6	7	8
Sl no	Restriction for of patients during period of treatment	Visible effects	No of patients treated		Remuneration for treatment Cash / kind	Negative effects if any for breaching the rule/instruction
1	9	10	Own community	Other community	12	13

GOVERNMENT OF ODISHA
SC & ST Research and Training Institute,
CRPF Square, Unit-VIII, Bhubaneswar-751003
Schedule for “Traditional Medicine and Healing practices among selected ST
Communities in Odisha”.

Schedule No- III
Schedule for Patients

SECTION-I (Identification)

Name of the Respondent	
Father's Name	
Age	
Gender of the Respondent	
Village/Hamlet	
GP	
Block	
Subdivision	
District	
Phone/Contact Number	

SECTION-II (Profile of the Patient)

SL.No.	Questions		
301.	What is your religion?	Animist	1
		Hindu	2
		Christian	3
		Muslim	4
		Sikh	5
		Jain	6
		Buddhist	7
		Other any (specify)	8
302.	What is your social category?	SC	1
		ST	2
		PTG	3
		OBC	4
		General	5
302 (a)	Please Specify Sub section/sub group of the Community		
303.	What is your educational qualification?	Illiterate	1
		Literate but no formal schooling	2
		Primary	3
		Upper Primary	4

		ME	5	
		HSC	4	
		+2 /Diploma level	5	
		Graduation	6	
		Post graduation	7	
		Professional qualification	8	
304.	Occupation	Primary	1	
		Secondary	2	
305.	Annual income (Appox)			

Section III Belief system and treatment of patient

306.	What is your perception about the occurrence of disease?	Wrath of gods/goddesses/Ancestors/ Ghosts & Evil spirit	1
		Evil eye	2
		Curse	3
		Unseen supernatural power	4
307.	Name the God/Goddesses/evil spirit for good health when pleased and for bad health when displeased		
308.	Do you sacrifice specific animals of specific colours to appease the God/Goddesses/spirit for good health or for their blessings?	Yes	1
		No	2
309.	If yes, which God/Goddesses/spirit and for which disease and which animals ?Specify.		
310.	Which item do you take more in your food?	Veg item	1
		Non-veg item	2
		Whatever available	3
		alcoholic	4
		non-alcoholic	5
		boiled	6
311.	Do you take alcohol?	Yes	1
		No	2
312.	Do you take any other intoxicants /tobacco etc?	Yes	1
		No	2
313.	Do you think that disease is also caused by insanitary, habit and excess consumption of alcohol?	Yes	1
		No	2
314.	If yes, what steps do you take to avoid disease?		

315.	Nature of food as per indigenous classification	(a)Which food stuff responsible for cold (bata)		
		(b)Which food stuff responsible for pitta		
		(c)Which food stuff responsible for cuff		
316.	Where did / do you get yourselves treated?	Disease	Place	Days of Suffering
317.	After how many days of suffering you visited the Traditional Medicine man	Immediately		
		After 1 day		
		After 2 days		
		More than that		
318.	What type of medicine did he give you?			
319.	Did you fully recovered by the treatment?	Yes	1	
		No	2	
320.	If yes, after how many days of taking medicine?			

321.	If you were not recovered from the disease, what did you do?		
322.	Whether you are suffering from the same disease repeatedly?	Yes	1
		No	2
323.	If yes, what is the reason behind it?		
324.	Whether you believe in Magico Religious Rites for getting cured?	Yes	1
		No	2
325.	Have you ever gone to a Magico Religious Practitioner for treatment?	Yes	1
		No	2
326.	If yes, for how many times, for which disease? Have you recovered from the disease?		
327.	What are the necessary materials required for Magico-religious practices in treatment of diseases?		
328.	What happens if one disobeys the instruction of the Magico Religious Practitioner?		
329.	Is there any proof of bad happening after being treated by a Magico Religious practitioners?		
330.	Whether your belief has been diluted after this untoward incident?	Yes	1
		No	2
331.	If no, why?		

332.	What is the demand of healers/ magico-religious practitioners to cure a disease?		
333.	Whom do you prefer more? A Traditional medicine man or a magico-religious practitioners, a modern doctor and why?	Yes	1
		No	2
334.	What is the reason behind to prefer this type of treatment? Is it cheaper/ locally available /more effective/ belief /custom?		
335.	Bring case studies of patients treated by Traditional Healers and Magio Religious practitioners.		

Full Signature of the Investigator

Date of Visit

--	--

/

--	--

/

2	0	1	3
---	---	---	---

GOVERNMENT. OF ODISHA
SC & ST RESEARCH AND TRAINING INSTITUTE,
CRPF Square, Unit-VIII, Bhubaneswar-751003
Schedule for “Traditional Medicine and Healing Practices among selected ST
Communities in Odisha”.

Schedule No- IV
SCHEDULE FOR AYUSH DOCTORS

Name of the Respondent	
Edn. Qualification of the Respondent	
Designation.	
Block.	
District.	
Phone/ Contact Number	

SECTION-1

No.	Questions		
401.	How many years you are in this profession?		
402.	What are the health care facilities available in the locality?	Govt. Hospital	1
		Pvt. Hospital	2
		Clinics	3
		Medicine shop	4
		Local healers	5
		Traditional medicine man	6
		Magico Religious Practitioners	7
		Others	8
403.	What are the common diseases prevalent in this locality and among the tribes?	Common Cold	1
		Fever	2
		Malaria	3
		Typhoid	4
		Measles	5
		Diarrhea	6
		Allergy	7
		Intestinal disorder	8
		Others, specify	9
404.	Where do people usually treat themselves for the common diseases?	Allopathy Doctor	1
		Homeopathy Doctor	2
		Ayurvedic Doctor	3
		Local Healers	4
		Magico Religious practitioners	5
		Others	6
405.	What is your idea about the Traditional Medicine Man / Magico Religious Practitioners and their practices?		

406.	Do you feel that the people are actually getting cured by treatment of Traditional Medicine Man / Magico Religious Practitioners?	Yes	1
		No	2
407.	If no, give your views.		
408.	How do you prepare the medicine?	Prepare myself	1
		Collect different ingredients and mix	2
		Depend on market	3
		others	4
409.	How many patients you are attending in a day /week/month/year on an average?		
410.	Do you feel that the patient have faith in you?	Yes	1
		No	2
411.	Which community members are coming to you more frequently for treatment?	PTG	1
		ST	2
		SC	3
		General	4
412.	Are you satisfied with your profession?	Satisfied	1
		Partly satisfied	2
		Not satisfied	3
413.	If not satisfied, what is the reason?		
414.	Have you taken any attempt to motivate/ persuade the ST people to use your medicine?	Yes	1
		No	2
415.	If yes, in what way and how many of them were motivated?		
416.	In your opinion, which treatment is better?	Your	1
		Traditional healers	2
		Magico religious practitioners	3
		Any others, specify	4
417.	What are the problems you are facing during treatment of patients?	No problem	1
		No proper medicine	2
		No support from community	3
		No equipment	4
		No faith of patients	5
		Others, specify	6

418.	What are the changes you feel among the people on health care during these years?	Inclination towards Allopathy	1
		Inclination towards homeopathy	2
		Inclination towards Ayurvedic	3
		Inclination towards traditional treatment	4
		Inclination towards magico religious practitioners	5
419.	Are you taking any remuneration (kind or cash) from the patient beyond the Govt. salary?	Yes	1
		No	2
420.	If yes, how much you are taking from a patient? Cash/ kind		
421.	Do you have any specialty in treatment of any disease? Specify.		
422.	Have you attended any training/ seminars/ conferences/ workshops for promotion/to develop expertise in your profession? (specify no. of times)	Seminars	1
		Workshops	2
		Trainings	3
		Others	4
423.	Do your employees also give medicine in your absence?	Yes	1
		No	2
424.	What is the cost of the treatment in comparison to their traditional medicine?	Price less	1
		Cheaper	2
		Costly	3
		Same as traditional medicine	4
425.	Is there any restriction for use of your medicine? Yes/ No	Yes	1
		No	2
426.	If yes, what are the restrictions and for which disease?		
427.	Whether the number of patients increasing or decreasing in different years?	Increased	1
		Decreased	2
		No Change	3
428.	How many patients are not recovered by your medicine? Specify.		
429.	Do you face any threat from the Traditional Healers/Magico-Religious Practitioners?	Yes	1
		No	2
430.	If yes, specify.		

431.	Do you know any initiative taken up by the Govt. or any other agencies to assist the local healers?	Yes	1
		No	2
432.	What is your opinion regarding promotion of their practice?		

Full Signature of the Investigator -

Date of Visit

		/			/	2	0	1	3
--	--	---	--	--	---	---	---	---	---

GOVERNMENT OF ODISHA
SC & ST Research and Training Institute,
CRPF Square, Unit-VIII, Bhubaneswar-751003
Schedule for “Traditional Medicine and Healing practices among selected ST Communities in Odisha”.

Schedule No- V

Schedule for Community Leaders/PRI members / Other Community Member /VLW/HW
ANM/AWW/ Asha/ Forest Guard

SECTION-I (Identification)

Name of the Respondent	
Designation	
Age	
Gender of the Respondent	
Village/Hamlet	
GP	
P.S.	
Block	
Subdivision	
District	
Phone/Contact Number	

SECTION-II

SL.No.	Questions		
501.	Position of the individual in the community	Self Help Group members	1
		Village Education Committee	2
		Nehru Yuva Kendra member	3
		NGO Functionaries	4
		PRI Members	5
		Village Level Workers	6
		AWW/ANM/ASHA	7
		Traditional Community leader	8
		Forest Guard	9
		Teacher	10
	Any Other (specify)		
502.	What is your religion?	Hindu	1
		Muslim	2
		Christian	3
		Sikh	4
		Buddhist	5
		Jain	6
		Any other (specify)	
	No response	9	
503.	What is your social category? Specify the Community	SC	1
		ST	2
		PTG	3
		OBC	4
		General	5
504.	What is your educational	Illiterate	1

	qualification?	Literate but no formal schooling	2
		School up to 1-4 standard	3
		School up to 5-8 standard	4
		HSC/ SSC	5
		College including diploma but not graduation	6
		Graduation	7
		Post graduation	8
		Professional qualification	9
505.	How Many healers are there in your locality?	Traditional healers	
		Magico Religious	

SECTION-III

No.	Questions		
506.	What are the reasons for prevalence of different types of diseases in your locality?		
507.	What are your views on health care facility in your locality?		
508.	What are the common diseases prevalent in your locality?	Common Cold	1
		Fever	2
		Malaria	3
		Typhoid	4
		Measles	5
		Diarrhea	6
		Allergy	7
		Intestinal disorder	8
		Others	9
509.	Where do you usually treat yourselves/ family members for the common diseases?	Allopathic Doctor	1
		Homeopathic Doctor	2
		Ayurvedic Doctors	3
		Local healers	4
		Magic Religious practitioners	5
		Any other (specify)	6
510.	Out of the above list at 508, what are other common diseases the traditional healer treats?		
511.	Do you believe in treatment of traditional healers?	Yes	1
		No	2

512.	If yes why? Please give your opinion.		
513.	Do you believe in treatment of Magico Religious Practitioners?	Yes	1
		No	2
514.	If yes why? Please give your opinion.		
515.	Have you referred any body to consult the Traditional Medicine Man/ Magico Religious Practitioners for treatment of disease?	Yes	1
		No	2
516.	If yes, which disease and why?		
517.	Have you undergone any treatment by TRADITIONAL HEALERS / MAGICO RELIGIOUS PRACTITIONERS?	Yes	1
		No	2
518.	If yes, which diseases?		
519.	Normally how many days it takes to recover from this disease?		
520.	What remuneration do you pay for the disease?		
521.	What other restriction do you follow during treatment?		
522.	Is there any change in healing practices adopted by Traditional Healers during last few years?	A lot of change	1
		Significant change	2
		No change	3
523.	(a)If yes, What are the changes? Specify		

524.	What is your view on curing practices adopted by Magico Religious Practitioners?		
525.	What are the changes and acceptability among people on health care during last 4-5 years?	A lot of change	1
		Significant change	2
		No change	3

SECTION-IV

No.	Questions		
526.	What are the problems the healers face now?	No Patients	1
		No Sustainable livelihood	2
		Outdated knowledge	3
		Non availability of ingredients	4
		People are more interested towards other treatments	5
		Lack of faith	6
		Cultural diversification	7
		Others	
527.	Does the healers treat each other	Yes	1
		No	2
528.	If no, why?		
529.	Do your know any plant/ roots / animal parts/ minerals used for medicine?		
529 (a)	If yes, for which disease?		
529 (b)	Can you prepare the medicine without consulting the traditional healers?	Yes	1
		No	2

SECTION-V

No.	Questions	Coding categories	Instruction
530.	Can you name some persons who are cured by Magico Religious Practitioners ?		
531.	Can you name some persons who are cure by Traditional Healers Medicine man ?		
532.	In your opinion, should Govt. take initiative for promoting these practices?	Yes	1
		No	2

533.	If yes, why?
534.	If no, why?
535.	In your opinion should scientific training or initiatives to be taken for the promotion of traditional healing practices?
536.	What kind of initiative or scientific process should be followed for its promotion and documentation?

Full Signature of the Investigator _____

Date of Visit

		/			/	2	0	1	3
--	--	---	--	--	---	---	---	---	---