# INDIGENOUS MEDICAL PRACTICES AMONG TRIBES: A SOCIOLOGICAL STUDY IN BANKURA DISTRICT OF WEST BENGAL

THESIS SUBMITTED FOR THE DEGREE OF DOCTOR OF PHILOSOPHY (ARTS) OF JADAVPUR UNIVERSITY

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# DEPARTMENT OF SOCIOLOGY

## CERTIFIED THAT THE THESIS ENTITLED

**"Indigenous Medical Practices Among Tribes: A Sociological Study in Bankura District of West Bengal"**, submitted by me for the award of the Degree of Doctor of Philosophy in Arts at Jadavpur University is based upon my own work ,carried out under the supervision of **Dr. Ruby Sain, Professor, Department of Sociology, Jadavpur University, Kolkata, West Bengal, India** and that neither this thesis nor any part of it has been submitted before any degree or diploma anywhere/elsewhere.

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**Supervisor:** **Candidate:**

**Dated:** **Dated:**

# DECLARATION

I, Mrs. **Satabdi Mondal,** do hereby declare that the present thesis submitted by me entitled, **"Indigenous Medical Practices Among Tribes : A Sociological Study in Bankura District of West Bengal"**in the fulfilment of the degree of Ph.D. to Jadavpur University, Kolkata has been undertaken under the guidance of **Prof. Ruby Sain**, Department of Sociology, Jadavpur University, Kolkata, West Bengal.

The Thesis is my original work and has not been submitted in any form to any other University or Institution for the award of Ph.D. in Sociology. Previous works in this field have been duly acknowledged as and when they have been referred to.

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# INTRODUCTION

# INTRODUCTION

In India, the study of tribes is an important area in spite of globalization and globalized world. Unity in diversity is one of the most spectacular features of the population of India. India has the second largest tribal population in the world. As per Census 2011,the tribal population constitutes about 8.9% of the total population in India. The tribal people throughout the country have rich traditions, cultures and heritage with unique lifestyles and customs. The Scheduled Tribes are notified in 30 States/UTs and the number of individual ethnic groups, etc. notified as Scheduled Tribes is 705. The tribal population of the country, as per 2011 census, is 10.43 crore, constituting 8.6% of the total population. 89.97% of them live in rural areas and 10.03% in urban areas. The decadal population growth of the tribal's from Census 2001 to 2011 has been 23.66% against the 17.69% of the entire population. The sex ratio for the overall population is 940 females per 1000 males and that of Scheduled Tribes 990 females per thousand males.

Broadly, the STs inhabit two distinct geographical area – the Central India and the North- Eastern Area. More than half of the Scheduled Tribe population is concentrated in Central India, i.e., Madhya Pradesh (14.69%), Chhattisgarh (7.5%), Jharkhand (8.29%), Andhra Pradesh (5.7%), Maharashtra (10.08%), Orissa (9.2%), Gujarat (8.55%) and Rajasthan (8.86%). The other distinct area is the North East (Assam, Nagaland, Mizoram, Manipur, Meghalaya, Tripura, Sikkim and Arunachal Pradesh).More than two-third of the ST population is concentrated only in the seven States of the country, viz. Madhya Pradesh, Maharashtra, Orissa, Gujarat, Rajasthan, Jharkhand and Chhattisgarh. There is no ST population in 3 States (Delhi NCR, Punjab and Haryana) and 2 UTs (Puducherry and Chandigarh), as no Scheduled Tribe is notified. In West Bengal, the Tribal population is 52,96,963 as per Census 2011, which is about 5.8% of the total population of the State. More than half of the total ST population of the state is concentrated in Medinipur, Jalpaiguri, Purulia and Bardhaman districts. Of the remaining districts, Bankura, Malda, Uttar Dinajpur and Dakshin Dinajpur have sizable ST population.

Bankura is one of the fascinating rich tribal districts of West Bengal in Eastern India. It is a part of bio-geographic zone of the Deccan peninsula of Chhotanagpur. The tribes love to live in nature and maintain their livelihood with their own indigenous system. Procured from their own indigenous knowledge stock, the tribals have developed their own health care system naturally linked with culture, tradition and environment. Indigenous health care practices are considered as an integral part of their culture related to ecology, forest, nature along with beliefs, superstitions, religious faith and magic. Indigenous medical system is prevalent among them and they maintain their own system of the medicine and health care based on knowledge of herbs and shrubs with help of medicine man commonly known as Ojha, for diagnosis and treatment.

## Indigenous Medicine

The origin of indigenous knowledge can be traced back to the ancient period. People used such knowledge from generation to generation. It is accepted that the tribes all over the world owning their own culture based on that have developed their own system of medical practices, which are being addressed as folk medicines. The study of indigenous knowledge is a new revolution set in the domain of Anthropology. A holistic perspective on human knowledge would help us understand the implications of indigenous knowledge, especially in the area of health and disease. The term indigenous knowledge has different connotations such as traditional knowledge, local knowledge, community knowledge and rural people's knowledge. Although the concept has different forms, the meaning appears to be synonymous.

According to Grenier (1998), indigenous knowledge is the traditional knowledge existing within and developed around the specific condition of women and men indigenous to a particular geographical area.

The World Health Organization (WHO) in the Health for all Declaration (1978), highlighted the need to include local people, their traditions and practices in primary health care (PHC).

Indigenous knowledge (IK) is local knowledge- that is unique to a given culture and society. Such knowledge is passed down from generation to generation in societies

verbally. Indigenous knowledge has value not only for the culture but also for scientists and planners striving to improve conditions in rural localities.

Giarelli (1995) warns "IK system cannot be reduced to the empirical knowledge they contain". He says that indigenous health knowledge and Traditional Medical Practitioners are usually a part of a wider system of knowledge about health, illness and relationship between humans and nature. Lama and Takeshita support this with their concern over the use of IK as a – biomedical utility as if it were just a matter of fact information rather than knowledge which is embedded in beliefs about life, death, disease, healing and ancestral heritage and are anchored in people's cultural identity. Currently, traditional knowledge based on health practices are promoted either by the state, which predominantly focuses on health care delivery; by tribal society as well as civil society whose focus primarily relates to conservation and health; or private sector through production and marketing of medicine, supplements and health care resources. Particularly regarding medicinal plants, folk and indigenous knowledge system of the 14 tribal communities in India, depends on forest resources.

The World Health Organization states that the majority of population of most non-industrial countries relies on traditional forms of medicine for everyday health care. In many countries up to 80-90% of the population is in this category. Medicinal plants are of less importance than animal recording to the material medica of these traditions.

## Tribes

Tribals represent an important social category of Indian social structure. Tribals are the original inhabitants of India. Multicultural and multiracial diversities occupying different parts of India, bear their own unique cultural heritage and characteristics. India has the second largest tribal population in the World next to Africa. Tribals are spread over the entire domain of the country. According to Dr. B.R. Ambedkar, the then chairman of drafting committee of the constitution preferred the concept of Scheduled tribes to Adivasis, for it enumerates tribes and carries a specific meaning. Scheduled tribes constitute second the largest group of backward classes that falls under the under privileged section of populace. Tribals are the earliest among the inhabitants in India

and have survived with their unchanging ways of life for centuries. Many are still in primitive stage and are far away from the impact of modern civilization.

The term tribe has been derived from the Latin word “Tribus” meaning ‘residential place’. It means an area or place where we live. According to ordinary men, the word tribe suggests simple folk living in hills and forests; to people who are a little better informed, it signifies the colourful people famous for their dances and songs; to an administrator it means a group of citizens who are the special responsibilities of the President of India. According to an anthropologist, it indicates a special field for the study of a social phenomenon.The Backward Classes Commission was asked to revise the list of scheduled tribes, states. “Scheduled tribes lead separate excluded existence and are not fully assimilated in main body of people and they may belong to any religion”.

Following are some of the definitions of tribes given by eminent persons:

- *S.C. Dube* in his work reflected that a tribe is an ethnic category, defined by real or putative descent and characteristics by a corporate identity and a wide range of commonly shared traits of culture.

- *D.N. Majumdar* in his work reflected that a tribe is a collection of families bearing a common name, members of which occupy the same territory, speak the same language and observe certain taboos regarding marriage, profession or occupation and have developed a well assessed system of reciprocity and mutuality of obligation.

- *Gillin and Gillin* reflected in his work that a tribe is a group of local communities, which lives in a common area, speaks a common dialect and follows a common culture.

- *Andre Beteille* reflected in his work on Sociology that a tribe is a society with a political, linguistic and a somewhat vaguely defined cultural boundary. He further reflects that a tribe is a society based upon kinship, where social stratification is absent.

- W. H. R. Rivers in his work reflected that a tribe is a simple type of social group, in which a common dialect is used by all tribals , they work together in war and peace.

## Why Tribes are different from others?

Tribal communities possess some common characteristics which distinguish them from other sections of the society. Some of the characteristic features are:

- *Common territory*- Tribe is a territorial community. Tribes have a definite territory where its members reside. In absence of a common locality, a tribe would lose its uniqueness.
- *Collection of families*- Tribals constitute a collection of families; these collections have various sizes. These families normally have blood relationship among themselves and may be matriarchal or patriarchal in nature.
- *Common name*-Every tribe has its own name. Each tribe is known to other tribes by its distinctive name.
- *Common language*-Members of a tribe speak a particular language. Different tribes speak different languages. These languages are not only different from the languages of civilised people but they themselves differ from one another. Their common language contributes much to the development of community feeling.
- *Common ancestor*-Tribals claim that they have common ancestor. A sense of communal unity in a tribe is the tie of blood relationships between members arising out of common ancestry. Tribals are bounded by kinship bonds.
- *Common religion*-Religion plays an important role in tribal organisations. Members of a tribe usually worship common ancestor. Nature worship is common among them. In case of ancestral worship and nature worship, tribals practise other types of faith such as fetishism, animism, totemism. Magic is widespread among them. Tribal, social and political organisations are based on religion. Participation in common religious ceremonies, functions and festivals contributes to the unity of a group.

- *Common culture* – A tribe has a way of life of its own. Each tribe has its own way of behaving, thinking, feeling and acting. Each has its own customs, traditions, morals, values and peculiar institutions in its culture.
- *Unity feeling*-Members of a tribe feel they are united. A sense of unity is essential for them to retain their identity. Tribes are cohesive and fight against common enemies as united people.
- *Prevalence of dormitories*-Tribal communities possess common feature of form of sleeping chambers or dormitories. Certain organisations train the youth in tribal ways of life. These are centres that preserve tribal legends, music, dance and paintings. Youths spend much of their time at night in dormitories and they are vested with the responsibility of protecting the community people.
- *Simplicity and self-sufficiency*- A tribal society is not complex but simple in character. Hunting, fishing, collection of roots, fruits, nuts, berries, honey and forest products are the main means of subsistence. Tribals were self-sufficient but due to increase in population and changed economic conditions, their self-sufficiency has dwinled. They have become more dependent on the civilised community and government aid. They are simple, honest, frugal and hospitable as well, but they are not educated.

## Background

Before and after the Indian independence, the tribal people of our nation have always played a major role. This can be identified with the valuable contribution that the subaltern or the Adivasis have made to nation. Amidst the social, cultural and political life of India, the tribals have played an important role and they have even worked shoulder to shoulder with the non-tribal populace to take the nation to newer heights of excellence.

Tribe signifies a race of people inhabiting in the core area of the virgin nature. Their age-old tradition of reciprocation with nature is significant, they consider nature as their mother and doctor. Since ages, the ethnic people have acquired knowledge about nature and have left a huge storage of knowledge based on first hand experiences about the healing potentialities of the plants, herbs and barks, organic and inorganic elements within our nature. Usually, the tribals live in remote and impregnable areas in the virgin

nature, far away from the modern high-tech civilisation. They have an age-old tradition to utilise nature at its best. They use natural objects for all requirements in life, even in healing themselves from different kinds of ailments. They are well versed about various natural elements containing high medical and therapeutic values. The modern allopathic medicines are based on laboratory diagnosis concentrated in cities and urban areas. Folk medicines and naturopathy have widespread impact on the rural and tribal belts, due to their availability and cost-effective nature. **(Sengupta; 2009)**

The tribals' practice of using nature to cure themselves, indicate the efficacy of the method of treatment with high degree of success rates through generations. This way of natural treatment with herbal medicines is utilized in modern therapy and has wide acceptability among the masses. The traditional ideas of truth, love, sacrifice and service, the mission has taken up the oath to serve the poor, local people considerable portion of whom belong to the Santal community. The Santals build their houses on a high land and surrounded by jungles. Their villages are uncrowded with huts and are well planned houses built on both sides of a Muccha mud road which is run by the centre of the tiny village. The huts are made of mud, bamboo, hay and wood.

## The Culture of Santal Tribe

Till the 18$^{th}$ century the Santals were primitive, slash and burn horticulturalists. They had community oriented egalitarian social set up headed by the village majhi. Agriculture was the mainstay of their economy but fishing and collection of fruits and other forest products constituted their additional sources of income. After permanent settlement they underwent rapid changes and that resultant effect threatened their free and forest-based life. Tribal consciousness towards politics was awakened due to the socio-religious reform movement of 1870s that had in turn brought them to the national politics. Previously in Jungle Mahals, the settlements were dispersed. They had aligned themselves with peasant unions to fight against usury, rents, landlords and moneylenders.

Culture is a bond among human beings themselves, human beings and societies and humans with nature. Culture is specified into spiritual, societal and material aspects. Culture needs to be conserved, rehabilitated, developed, transmitted, promoted and

exchanged, as it helps in gaining peace, happiness, freedom, the foundation of human civilization. The Santhals have festivals of dance for men and women and each festival has a distinct dance form and songs associated with it. Santal men and women perform dances individually and collectively.

***Village structure of Santals-*** *A* Santal village has a spacious road stretching from beginning to end bisecting into rows of houses on both sides of the road. Influx of settlers and increase in population, has led to the establishment of many new tolas in villages. It has deconstructed many villages into shapeless conglomerate of paras rendering them in a scattered and dispersed looks different from the old streets. Changes crept in the maintenance of installations like Jaherthan and Manjhithan in Santal villages. The high raised platform known as Majhithan situated at the middle of village was in a broken condition.

***Pattern of houses-*** Santal houses are square shaped with a space at the centre encircling where rooms are built. Each house has a square compound with huts being built on the sides and sheds for cattle, pigs and fowls. The roofs of huts have two sides with gambles and walls made of mud. Bamboo is used for rafters, posts and roofs and the thatching is made with straws of rice plants. Every house has a bhitar or a family altar in the corner of the principal hut. The Santhals prefer to have windows in houses that did not exist previously. Few houses have roofs made of tin and asbestos. They even prefer an open space in front of the main entrance of houses for gardening or cultivating vegetables. Floral designs and tattoos are drawn with coloured stones in exterior mud walls of houses in the past.

***Family Structure-*** The traditional family setup of Santals has undergone changes with the increase in population resulting in disintegration of a community oriented village system headed by the majhi. Santals have caught up the pattern of nuclear family in recent times though traditional structures of family as pyramidal families and extended families are available in society.

***Marriage-*** Marriage is a popular occasion in Santal society. Bapla is used for marriage; Monogamy is generally practised practice but polygamy is not rare. Men

among Santal with high status indulge in polygamy but it is not preferred by common men. Among Santal marriages, material consideration has never been a serious issue though there is the practice of offering a token bride price by grooms or relatives to kinsmen of bride. Trend of accepting dowry has emerged among the richer, affluent sections of the society. The other forms of marriage are IturBapla, Sanga Bapla and Baha Dor Bapla. Customs of Hindu marriage have impregnated into the marriage system of Santals. Practice of court marriage is also prevalent. Besides marriage, customs of death have been dispensed.

***Language and literature among the Santals-*** The missionaries among the Santals used Bengali and Devanagari scripts to write in Santali. Later, Roman script aided with some diacritical marks came in use. The frescos and drawings in outer walls of houses resemble with pictographic script of the ancient period. Educated Santals adopted Hindu patterns of life including their language and this is due to the progressive disintegration and deterioration of the community in loss of faith in their own religious system. This in turn has adversely affected Santali language and literature and efforts to work out an effective Santali script. They was unsuccessful. They have faced the problem of language dimension in trying to the resolve the issue of using a single uniform script throughout. In Bengali script known as 01 Chiki has come into existence and books in O1 Chiki are in process of publication where the majority prefer Bengali script for expressing Santali language.

Santali literature is rich and occupies a conspicuous position in history of tribal literature of India. It has been primarily an oral literature for centuries, as different manifestations of literature like Santali songs, riddles, folk tales have been handed down orally from one generation to another. In the Second half of the 19$^{th}$ century, with initiative of Christian missionaries a great deal of compilation and publication of Santali literature took place. Santals did not have a script of their own. The missionaries used regional scripts like Bengali script in Bengal, Devnagari in Bihar and Oriya script in Odisha to express the literature of Santals. Literary activities among the Santals have increased after independence with the growth of Santal middle class. Various educational and economic facilities have been accorded with the statutory provision of the Indian constitution. Certain groups of Santals have availed themself the

opportunities of education and employment and raised their status in the society in general. The Santali intellectuals highlight on their social and economic problems through writings in Santali journals and books. Santali writers belong to the educated middle class, most of them are service holders and are employed in government sectors, but few are teachers as well. The subject matter of writings include aspects of their socio-cultural life in the past and the heroic struggles during the colonial rule. Santali writers highlight on contemporary issues like raising political consciousness, growth of education, drawbacks of liquor consumption and campaigns against witch hunting.

***Fairs and festivals-*** The Santals performed rituals and ceremonies in the Jaherthan. The kind of practices acted as a moral force in binding households into corporate productive organizations of the village. Factors like nuclearization of Santal households and other modernizing influences have reduced their liking for collective participation in rituals and ceremonies. Some of the major festivals of Santals are Karam Parab, Janther, Sohorai, Magh Sim and Baha or Spring festival. Other festivals like Eroke Sim, Hariar Sim are connected to agriculture and these festivals are celebrated with great pomp and grandeur.

Agriculture that sustained their life, was considered as a gift of nature and they worshipped nature before beginning of every phase of activities regarding agriculture. The agricultural life of Santals has undergone changes. Ritualistic part of festivals has become insignificant. These are conventions rather than paying respect to tradition; these festivals act as a license for heavy drinking and merry-making for the present generation.

***Folk dance and music-*** The culture of Santals is embedded with folk songs and dances. Songs are sung in every festival; music and dance are attuned to nature and associated with popular customs and beliefs. In their villages one can hear after dusk, the sound of simple popular musical instruments, beating of drums and soothing sounds of fiddlers and flutes. Santali songs are not only for entertaining crowds but also for reflecting the mood and spirit of the ongoing festival. Santali songs are traditional or non-traditional and of lyrical nature, trend of modern Santali songs composed with popular Hindi and Bengali songs of modern period is on the rise. Modern Santali songs

are believed to emerging in the musical world of Santals since time. Traditional musical instruments like flute, fiddler and drums have taken a beating over the years due to the popularity of audio-cassettes and tape-recorders. A change has been discernible in the musical world of Santals. There is a rise of professional groups of musicians and dancers. These groups perform in contract and hired manner organised by government and private agencies to promote traditional culture of tribals.

The folk dance performed by the Santals during occasions are:

- Dong enech- Dong dance is performed on the day of the wedding ceremony. The men and women dance separately but follow steps; men play instruments.
- Mongri- This dance is to celebrate and there are no restrictions on this performance. An exclusive dance performed to tide over hardships of life; men and women dance separately but follow same steps.
- Baha Bonga- This is performed during pujas. Both men and women participate, but dance separately.
- Dongelenech- This dance is performed only by men in association with shikar or shooting and is performed any time during the shooting season during Chaitra and Jaistha.
- Dansaienech- This is performed only by men during the occasion of Durga puja. No instrument is played in this and the participants dance as per the rhythm. A few is tied with a string to the skin of a gourd; the string is pulled as per rhythm and it creates sweet sounds. Dancers use a pair of bells.
- Sardsaenech- During the occasion of Durga puja, the women perform this dance. Women carry two steel plates with spoons attached to them. Dancers beat the plates with help of the spoons.
- Karam dance- This dance is performed during the occasion of Karam puja. Men and women perform this dance, but separately.

***Religion of the Santals-*** Religion of Santals has no such reference. The word Kherwal stands for the race's name. In Puran, the use of dharam to uphold the name of the tribal deity is called dharam bonga. The word bonga denotes popular deities of Santals like Sing Bonga and Cando Bonga. The Santals do practise religion in the same manner like Hindus, Muslims or Christians hold the religion and culture. The ritualistic

aspects of fairs and festivals constitute important components of culture whereas those rites and rituals with respect and discipline are defined as religion. The religions of Santals are Sari Dharma, Sarna dharma, Baha Dharma, Sadhu dharma and Adivasi Dharam. The process of assimilation with Hinduism has never been official nor has taken the form of conversion as Hinduism do not fence in the convert as in case of Islam or Christianity.

Santals possess a socio-cultural mosaic that often is found in the caste-ridden Indian society. The socio-religious characteristics of Santals are:

- Offering during worship is made with a pictorial boundary known as khond as a mark of mundane relationship of supernatural power.
- Idol worship is prohibited and a traditional temple does not exist.
- Burial and cremation are practised. A chicken is dedicated to a dead body.
- The society is devoid of caste hierarchy and by birth no person, family or clan group is superior or inferior. Santal women enjoy freedom without the dictates of their spouses.
- Blood offering is prevalent in community and the practice of cow sacrifice is restricted.
- Priesthood is avoided by a particular clan group or sect but is owned by the family members of the first settlers of village. A selection of a successor of an old priest is held if no male child is born.

***Witchcraft among the Santals-*** Witchcraft was an integral part of the religio-magical system of Santals in the past. In districts of West Bengal incidents of Witch killing has been reported. Santals believe in witchcraft emanated from respect and fear of Bongas. The principal element in the assumption of supernatural power is the conception of Bongas, the power that controls nature and that witches have connection with these Spirits or Bongas and also have power to cause harm to mankind. The belief in malevolent Bongas has made the phenomena of witchcraft in Santal society dreadful. Apart from superstition, other factors like illiteracy, poverty, lack of modern medical facilities, technical knowledge are responsible for the growth of witchcraft in Santal society. **(Mishra and Dutta; 2012)**

In Bankura and Midnapore districts, educated Santals together come to protect against incidences of Witch hunting and have launched awareness campaigns among the Santals against it. These groups have composed songs, and staged dramas for mobilizing people against superstition. The movement aims to remove superstition of witchcraft and preventing murder of women in the name of witch-killing.

## Medical Anthropology

Medical anthropology emerged out of the study of health care systems prevalent in primitive societies. The concept of health in human groups is not defined in a clinical sense; it has cultural connotations with social moorings. Many policy makers did not realize the above fact and they understood it more as an idealized state. The social perspective of medical science is appreciated. According to Ahluwalia, it is only in the recent past fifty years or so that serious attempts have been made to study systematically the relation between sub-culture of medicine and wider a society of which it is a part. Every aspect of sub-system of medicine influences from wider social system, irrespective whether it is organization of persons involved in system or an environment of media tools or techniques and ideology that they employ. In 1973, Kleinman forwarded the notion that medical systems should be defined as cultural systems and it is next to impossible to ignore that medical anthropology is incomplete without cultural context of an area. Medical systems submerged in different symbolic realities within which illness and healing occurs. The tribals and non-tribals are a consequence of ethnicity. Health of the tribals is explained with relation to tribalness, a cultural product of age-old historical process. Among the tribals, the diseases are related to belief in different deities and spirits. It mainly happens due to belief in supernatural forces or any negative force against such cause or due to physical factors. Majority of medical anthropological research has emphasized on psychic factors of health that has linked to traditional faith of supernatural and diseases. In every culture, spirits of dead ancestors play an important role in ensuring health, prosperity and protection to family. If these ancestral spirits are not properly honoured, worshipped or humoured they invariably inflict some afflictions for the members of family. Tribals even believe that health is threatened not only by spirits but also by persons emanating evil, mystical powers like evil eye, evil mouth and evil touch or witchcraft. Soul of a man plays truant quite whimsically or may be enticed by a sorcerer or by some malevolent spirit resulting in

sickness. But the soul cannot be recalled or reinstated within short time and this results in death of the person. Use of herbal medicine is embedded in two traditional systems of medicine like folk system and literate tradition consisting of Ayurveda, Unani, Sidha, Homeopathy, nature cure and yoga. (**Roy Burman; 2003)**

## Overview of Tribal Health: Issues and Challenges

A mentally healthy person to a psychologist is a productive and unalienated person, a person who relates himself to the world and who uses reason to grasp reality objectively, one who experiences himself as a unique individual entity at times feels one with his fellowmen who is subject to irrational authority and accepts willingly to be a rational authority of conscience and reasons and is in the process of being born as long as he is alive and considers the gift of life the most precious charms an individual has. According to Jaheda, the concept of positive mental health was developed. He argued that the notion would be viewed as an enduring personality characteristic or as a less permanent function of personality and social situation. Mental health in her notion required the accurate perception of reality.

Health status of an area can be measured by various health problems and infant and child mortality is among them. Infant and child mortality determines the growth of population. Health is an important factor for socio-economic development. In the words of noble Laureate, Amartya Sen "*Bad health is constitutive of poverty. Premature mortality, escapable morbidity, undernourishment are all manifestations of poverty. I believe that health deprivation is really the most central aspect of poverty".*

The major aim of health mission is to improve maternal and child health that also is a global concern and prioritised area of Millennium Development Goal (MDG). Well-being of mother and child, determines the health of the next generation and helps to predict the future public health challenges for families, communities and health care system. Women and new born health status depends on educational status, accessibility of health service, quality of care, community of affordability and social structure. In India, there is a huge diversity of social structure from one to another. Variation of custom and tradition is high among different tribal communities. Tribal groups are

throughout the country and are distinct biological isolates with characteristics cultural and socio-economic background. **(Chowdhury; 2018)**

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## Santals and their Health Status

Santals unlike others lead a corporate life, they live as a community in Mandali villages. They believe in community identity rather than individual identity, they maintain a communal harmony among the members of the village. According to C.C. Hughes "folk medicine is a body of belief about the nature of diseases, its causation and cure and its relation with other aspects of group life. There also exists therapeutic and preventive practice, many of which are empirically efficacious by standard of modernisation ……. but one common character is its close integration with other institutions of society, religion, medicine and morality".

According to O.P. Jaggi "an authority on folk medicine has described folk notions of cause and cure of diseases in two parts, supernatural and natural. The supernatural includes the wrath of gods and goddesses, influence of evil spirits, magic, witchcraft, fall out of law breaking and evil eyes. The natural causes are climate, infection, food poisoning, wanton habits and accident. These practitioners are known as Ojha, vaid, preceptor and religious preachers, gypsies, barbers, priests, fakirs and witches and older members of the family practice folk medicine. The medicines are procured from local plants, animal and mineral products that are administered by all kinds of improvised physiotherapies. People are encouraged to were amulets and talismans made of metals and precious stones. The settlements of these doctors are special temples and mosques. These settlements are looked upon as folk hospitals by the rural population. The physiotherapy and incantations are close to modern psychiatric treatment. Ancient folklore fell victim to sanskritisation and westernisation. Medical folklore was buried in Atharva Veda or dead knowledge. Ayurveda is a refined form of folk medicine. The knowledge was Sanskritised and became the stock in trade of the Ayurvedists. It got detached from people and culture. **(Palit; 2009)**

The availability of Ayurvedic and Unani medicine was bleak. In the report of Campbell Brown's Report of 1870, it was found that centres of Ayurvedic treatment were reduced from 400 to its one-third; these traditional medicines were expensive. With this folk medicine survived and thrived. The positive and negative features of folk medicine was due to more faith healing than scientific reasons; It was a combination of psycho-therapy, physiotherapy, naturopathy and herbal medicine. Santal medicine is an offshoot of the whole range of folk medicine. The origin of Santal medicine can be traced back to Austro-Asiatic or Dravidian people of the Harappan times. In Atharva Veda the culmination of this knowledge in Sanskrit means dead knowledge. The Aryans refined it and Sanskritised it into Ayurveda. Ayurveda is the medicine of great tradition whereas tribal medicine or Santal medicine symbolized minute tradition and is now called local medicine.

On the basis of D.C. Pal and S.K. Jain tribal medicine report out of 3200 taxa as far as medicinal plants in India, a total of 343 species under 298 genera and 98families are known to be used as medicine by four major tribal groups like Santal, Munda, Oraon and Lodha. Most of the plants are used in preparation of herbal drugs used in traditional system of medicine as Ayurveda, Unani, Siddha and Tantra therapy.

The Santals maintain a good health, since childhood they take proper care of their body. Their food habits and daily practices are healthy. They brush their teeth with a branch of neem or babool. They also keep their surroundings and themselves neat and clean. They bathe regularly, wash their hands and body to clean it and also use oil for their skin and hair. They wash their clothes with ritha and ashes from a burnt trunk of a banana tree. Among their food habits, they avoid some food items, among the animals the flesh of hanuman, monkey or ham, horse and hyenas and among the birds eating dead bodies, insects and other dirty things like vulture, parakeet and full-grown crows are some of the forbidden foods.

The Santals that take up this knowledge professionally, are regarded as 'Ojhas.' These tribals are very skilful vaids who possess vast knowledge about the surrounding plants and herbs having therapeutic values. Through these vaids they can set fractured bones and can do some preliminary surgery. This proves their knowledge about human

anatomy, along with their knowledge of nature as a whole by the tribals. Their main areas of concentration of treatment are hydrotherapy, mud therapy, urine therapy etc. The Santals even believe that the mode of treatment as hydrotherapy can be carried on through different ways, such as tub bath, hip bath, steam bath. Tubs of different shapes and sizes are used as per the requirements of the patients. The process of the therapy is that the lower portion upto the upper abdomen of a body according to the nature of ailment remains in warm water for at least half an hour to forty-five minutes along with a piece of wet cloth on patient's head. This therapy is proved to be effective for Arthritis, Constipation, Irritable Bowel Syndrome, Piles etc.

Mud therapy is another way of therapeutic treatment. The method of treatment is only the alluvial soil dug out from 7-8 ft depth of the riverbed is used for this kind of treatment. ½" thick coat of fresh alluvial soil is to be applied to the affected areas for half an hour to forty-five minutes regularly for a few days to cure ailments. This therapy cures diseases like stomach disorder, various skin diseases like carbuncles, ulcers, headache, colitis, fever etc. Natural healing of different skin problems through 'Atapsnanam' or sunbath is a phenomenon among the indigenous people. In modern days, these naturopaths are effectively applying this mode of treatment to cure skin diseases of different kinds. The therapists apply the Vedic method of yoga and enhances physical and mental strength of a person. They even teach pranayama or the control of breathing as a method of building up inner strength to combat ailments. The wonderful knowledge to relieve the pangs of ailments and also to cure the patients fully well serve as an effective supplement to enhance the knowledge of modern methods of treatment.

**Health status of tribal women and children-** In terms of health condition, both tribals and non-tribals are counted as a whole to state statistical progress report. Lack of personal hygiene, poor sanitation, poor mother-child health services and absence of health education, lack of national preventive programmes and lack of health services are responsible for the poor health of the tribals. Problems of insanitary food supplies, water contamination and poor food intake reflect on the health status of tribals.

**Maternity and Child Health care practices-** Child bearing imposes additional health needs and problems on women physically, psychologically and socially. Maternal mortality has been reported among various tribal groups. The chief causes of maternal

mortality are found to be unhygienic and primitive practices of parturition. From the inception of pregnancy to its termination no specific nutritious diet is consumed by women. The consumption of iron, calcium and vitamins during pregnancy is poor. The habit of consuming alcohol during pregnancy has been found to be usual in tribal women and are observed to continue their regular activities including hard labour during advanced pregnancy. Vaccination and immunization of infants and children have been inadequate among tribal groups. Extremes of magico-religious beliefs and taboos tend to aggravate the problems.

**Morbidity and mortality rate-** The government of India, has introduced the RCH programme to address the problems of women that adolescent girls encounter by setting up the ARSH programme. Many young girls suffer serious consequences of unwanted pregnancy due to unsafe abortion and many women and girls die when they have a home delivery and suffer post partum complications escalating the mortality and morbidity rate in our state. Zero awareness about sexuality and reproduction, and the hesitation to avail the current free adolescent and reproductive health services and contraceptive services and other MCH services provided at all government health facilities and refusal of institutional deliveries result in high morbidity and mortality among the tribal women.

**Nutritional status of tribal women and children-** The health and nutritional problems of the vast tribal population of India that varies as tribal groups themselves, present a bewildering diversity and variety in their socio-economic, socio-cultural and ecological settings. Malnutrition is high among tribal population. Nutritional anaemia is a major problem for the women in India and in the tribal rural belt. Both the rural and tribal women area with a heavy workload and anaemia has a profound effect on their psychological and physical health. Anaemia lowers resistance to fatigue, affects working capacity under conditions of stress and increases susceptibility to other diseases. Tribal diets are deficient in calcium, vitamin A, vitamin C, riboflavin and animal protein. **(Chowdhury; 2018)**

**Pregnancies and Mortality among women-** Tribal women conceive on average more frequent than non-tribals. Health and physical growth of tribal women are constrained by inadequate and improper food intake out of poverty and ignorance. So health and

physical growth is below normal requirements. Under sub-standard level of physical growth when tribal women conceive more maternal health is degenerated leading to anaemia, which is vulnerable for several diseases. Maternal mortality of tribal women is the highest incidence of death as compared to other communities in India and all over world.

Health of women is an important issue under Human Resource Development and the highest prioritized area in family welfare programmes. WHO statistics shows that the lifetime risk of dying from pregnancy is one in twenty in some developing countries compared to one in ten thousand in industrialized countries.

**Open Defecation is a serious menace to child health-** Sanitation is a human right essential for life, health, dignity, for empowerment and prosperity. Millions of people across the globe lack adequate sanitation and hygiene facilities. Poor sanitation and hygiene translates into destructive results on maternal health is the leading cause of child mortality under age five. Practising open defecation pollutes the ground edible water and contaminates it with huge pool of harmful microbes and unveils the community to the water borne diseases like diarrhoea, dysentery, cholera, hepatitis A, typhoid and restricts the normal growth and cognitive development. Defecation in agricultural land contaminates the crops and food materials. Open defecation causes harm to pregnant women and her baby is prone to microbial diseases leading to shunting or wasting in children. Shunting has long term negative consequences on health. Health risks with shunting begin in the womb and continue through life. Babies are born underweight or stunted due to the mother's underweight and unhealthy condition. Maternal stunting increases the risk of negative fetal, new born and child outcomes.**(Chowdhury; 2018)**

**Person with disability among the scheduled tribes-** Disability is an umbrella covering impairments, active limitations and participation restrictions. Impairment is a problem in body function or structure. Disability is a complex phenomenon reflecting an interaction between features of person's body and society where he lives. Persons with disabilities are economically impoverished, politically marginalized and visible members of society globally. PWD's are the vulnerable and marginalised sections of society across caste, creed and community.

## Health Condition

*Improved economic growth*-Education increases socio, economic, and political opportunities meant for women. It leads to economic benefits in form of higher lifetime earnings for women. The society and community benefit from the higher productivity of its labour forces.

*Socio-economic programme*- The Central Social Welfare Board assists fiscal help to voluntary organisations for a variety of income-generating activities, providing work and wages to needy women. Small economic units, handloom and handicrafts units, dairy units and other animal husbandry programmes like piggery, goat-rearing, sheep breeding and poultry have been supported under this programme.

*Economic stability of tribal women*- Economic independence is a vital factor for overall empowerment. Economic development efforts to combat poverty and can succeed if women are part of the solution. Women's economic empowerment is the capacity to bring economic change for themselves in viewed as important contributing factor to achieve equality between men and women. Empowerment can be achieved as means of creating social environment in which one can make decisions and make choices either individually or collectively to social transformation.

## Ayurveda

Ayurveda is ancient Indian medicine that represents science and philosophy of life from times immemorial in India. This medical system not only serves ailing in neighbouring south Asian countries like China, Japan and Thailand but also influences their daily life style and social customs aiming at total health. Ayurveda is comprehensive science and art of dynamic state of human living. The word Ayurveda has been derived from 'ayu' meaning 'life'. State of living is continuous chain of reactions to changing pattern of environmental stimuli; amount of harmony among life reactions is desired for sustenance of healthy living. Scope of health in Ayurveda is based on approach to human body. It perceives man from comprehensive and holistic view. It is the epitome of the universe, all the constituents of universe are present in human body as it is percolated as a final result of billions of interactions among all constituents of universe through millions of years and state of equilibrium among body constituents is

considered as health. Human life is constituted on three different spheres like physical, psychological and spiritual spheres. **(Reddy;2011)**

Ayurveda is not only traditional folklore but also a highly evolved ancient life and health science based on its unique fundamental principles. Its antiquity traces back to ancient Vedas. It follows the laws of nature and propounds numerous of applied doctrines for understanding of life, health, disease, diagnostics and cure. Doctrines are valid and throws light on several unresolved issues of science of medicine as a whole. Subtle knowledge of science of Ayurveda appears to be developed through keen observation and intuition over the phenomena of nature. Transmission of knowledge and transaction of profession took place though Guru-sisya tradition in Gurukulas.

In case of maintenance of health and treatment of diseases, Ayurveda has stressed on composition of universe to comprehend composition of human body. Theory of five proto elements known as Pancha Mahabhutas is propounded to analyse the universe based on perspective capacity of man. The integral approach adopted to analyze human system has actualized the study of drugs in Ayurveda. It believes that every natural substance on earth is created for the benefit of man. The earth is filled with drugs for the benefit of mankind. All herbs are biological drugs within the vicinity of human necessities. Herbs are natural biological drugs received and accepted by the human system. They enjoy receptive atmosphere in human body while treating diseases unlike synthetic drugs that face rejective and counter productive atmosphere. Herbs used in totality provide side benefits unlike the side effects caused by synthetic drugs.

Treatment of Ayurveda aims at two aspects. First it is to promote strength and longevity and second it is to treat the diseases. The therapy that provides an ensured circulation of nutrients in the body is known as RASAYANA. The therapy is meant to prevent ageing and diseases caused by the Skin is the seat for Rasadhatu. By administration of Rasayana therapy the skin becomes intact in early days.

Ayurveda is not only an official system of medicine in India but is a rich heritage with potential scope of developing into complete medicine for not only India but worldwide. Ayurveda is officially practised in India and has huge professional man-power working with relatively scratchy infrastructural facilities. It enjoys sound acceptability among

masses and is a safe and cost-effective system. Attempt must be made for literary, conceptual, clinical and therapeutic research in Ayurvedic treatment.

Ayurveda today is emerging as an integrated health science with independent co-existence parallel to conventional modern medicine. The Indian experiences are independent of Chinese model and its useful to weigh and compare the two experiences in the field of traditional medicine for future policy development. **(Reddy; 2011)**

## Diseases among the Santals

Tribes suffer from many communicable and cardiovascular diseases. They even suffer from mosquito causing diseases like malaria. Hygiene among the tribals is abruptly poor. Skin diseases and several diseases are common. Though HIV or AIDS infection is rare, recently it is caused through extramarital sexual contact. Drinking water in remote tribal areas are not much polluted. Water-borne diseases like diarrhoea and dysentery are not extensively observed. Occasionally they cause problems. Patients escape from problems of morbidity and mortality in absence of proper treatment and non-availability of health care facilities in nearby areas. Lack of transport facilities and poverty make them helpless to access curative services from distant places. Fatalism and absence of awareness on seriousness and control of diseases add to sufferings and risk of mortality. Cardiovascular diseases causing hypertension and heart attack constitute the major cause of mortality of adult population of tribes.

Santal tribes consider illness and diseases as unnatural and make deductions on their own propositions. They believe that diseases are inimical and foreign to man who has full right to lead a healthy, wealthy and happy life. They profess to belief that as man is brought into this world by necessary support of Creator or Supreme Being. The life of men is predestined by Almighty and man is not physically immortal, his soul is believed to be so. Santals believe in spirits with no exception to evil and enemies of man. They call it as ‘Bongas’ that are supposed to harass humanity, to eat people as they are hungry, displeased, hurt, envious and this eating is devouring of health and substance of person exposed to displeasure of spirits. These spirits are the witches, who are none but the women of their clan. In short, the Santals believe in good power who gives life,

provides necessaries for it and allots span of life and in destructive, inimical powers and man is exposed to the action of latter.**(Bodding; 2011)**

Santals believe that Bongas can work on evil and they have the power to make good again what they have committed to evil. The only thing they can commit is mischief. Santals consider 'Cando', the sun, the Supreme Being or the Creator is the one who can give and restore life and has created trees and plants that contain remedies against all evils. He has sown the seeds of these all over the universe. To recover from any disease its necessary to find medicine that suits or is intended for any particular illness. Santals have curious ideas about diseases due to what they call tejo, meaning larvae, worms. A tejo is large but they apparently look small as to be invisible to naked eye. People have two tejos at the root of their nose and if these work their way up to the brain in the forehead and commence to butt one another, the person gets the attack of epilepsy. Leprosy and cancer in the jaw are caused by some specific tejos. Their entire body is full of tejos of some sorts. Santals believe that leprosy is caused by tejo and diseases and paralysis are distinct punishments by the Creator for some unrighteousness committed before Him and are consequently incurable. Leprosy is passed on from generation to generation from parents to children but infection may be avoided, if they do not eat food touched or left by lepers.

Families understand the nature of disease called tuberculosis and take measures that might help to check its spreading. Santals have superstition that witches every year go to a place called 'Kundlipukhri', a ring tank from which they bring back germs of diseases specially like epidemic ones, and in accordance with what they bring during any year, the people have to suffer. Pain in lumbago is caused by direct witch-action. Witches cut out and eat liver of people whereby they get some diseases. From such diseases no one recovers until the witch is forced to make restitution. Mist and fog causes cough and bathing in dirty water when the early rain falls. It gives rise to ophthalmia. Sense and superstition are mixed up with premium on superstitions. **(Bodding; 2011)**

## Health Problems among the Aged people of Santal Community

Ageing of population is increasing in developing countries nowadays. Population ageing is described when proportion of youth and children decrease. In India demographically,

persons above 60 years of age are considered as aged population and are termed as elderly population. Around eight chronic diseases of rural and urban ages of aged people happens due to sex. Problems of joints were found as major health problems for the majority among the aged populations of rural and urban areas. Cough and cold is another problem reported by most of the aged in rural and urban tribes. The former was common among men due to smoking habits. Hierarchically, the problem of high and low blood pressure was common among the aged people. Piles, heart disease, urinary problems, diabetes and cancer were other problems found by the significant proportion of male and females in rural and urban areas.

Visual problem is the first hierarchical disease among the elderly. This is due to low socio-economic status and health services in rural areas. Hearing is another hierarchical disability among the aged. Locomotors disability is the third hierarchical health problem of the aged. Amnesia or senility are fourth and fifth hierarchical order of physical disabilities of the aged. The prevalent rate of physical disability was higher in case of the rural aged people the urban counterparts. This is due to low socio-economic and health services in rural areas. Economic dependence of elder persons by category of persons supporting of male and female aged in rural and urban areas. The lack of practice of social security in the old age in India family system; the low socio-economic status of females and high dependence on men in Indian society have been noticed. **(Reddy; 2011)**

Increasing population of the aged requires more health services and social security policies. Health care network should be aimed at the aged population with special schemes of health programmes. Old age pensions and old age homes are required for healthy life and better socio-economic status in later ages with satisfaction and well-being of aged.

## Use of Ethno-Medicine for Health treatment among the Santals

Tribals are averse to modern medical treatment as they have faith in traditional system of treatment that is based on superstition, belief in supernatural power and hostile spirits. Treatment of diseases does not resemble modern scientific method as prevalent in western medicine but it's a wrong assumption that it has no scientific basis. It follows

the path that covers not only scientific principle but involves society at large to overcome the catastrophe. Some diseases are caused due to violation of existing social norms and customs. Some tribals in Bastar region in Madhya Pradesh make use of Ayurvedic medicine along with traditional indigenous medicines. Tribes at present take advantage of allopathy but their attitude towards modern medical care as not encouraging. In many societies. Beside having recourse to supernatural remedies amd cauterization. They have taken the benefits of surgery, fracture treatment to trephining, inoculation against smallpox and snake bite and enormous pharmacopoeia including opium, quinine, digitalis, and other useful drugs. Treatment is often not based on rationale sense but is rapt in spells, prayers, manual rites and dances.

All these add on to psycho-therapeutic qualities of tribal methods of healing. Primitive psychotherapists' strength not only comes from interpersonal ties between doctor and patient but also from the effect of frequent participation of entire community in treatment. Illness and treatment is not an individual or familial affair. Nature of treatment may be taken at the community level. In case of some diseases, not only the diseased person or his family but also the total village community is affected. All other families are expected to observe taboos regarding norms of food habits. Healing and witch-craft sorcery beliefs and rituals indirectly support the social structure and dramatize the importance of equal distribution of wealth, homogeneity of culture, channel anxiety and promotes social control.

The Santals believe in ojha, gunin or priest. Yet they avail of modern medicines and treatment, They mostly believe in using medicinal herbs. In different ailments of women, they prefer traditional methods for treatment. If children suffer from measles or chicken pox, they worship Maa Sitala, the goddess of relief and cure. They believe in rituals and methods followed by local priest. Many believe in witchs, ghosts and evil influences. Santals consult doctors in case of fever or other ailments. But if medicine fails to improve the condition, they take the help of ojha who provides charms like maduli and tanu. The ojha performs magical activities like jharfuk and the medicine is continued simultaneously. Santals drink potable water and so problems of stomach ailments have come down. They are also consulting professional doctors and consuming medicines.

Treatment of broken bones or joints has been referred in Satapatha which involves grafting of a joint with another joint or pouring some poison to be used as lotion to connect the broken bones. Satapatha prescribes use of ointment all over the body i.e. from head to feet. Reference has been found that a man cures his sores of skin by using ointment. Eye ointment remedies to cure eye diseases. The efficacy of eye ointment was used to heal the pus formation of eyes and thus eyes were relieved from forming ailments. Natural elements like water and air was considered to remove diseases. Natural water poses preventing capacity for removing ailments and can be complemented as a medicine. As water is soothing in character, it is used for healing wound. Air is also used for the same purpose. Satapatha text related to religious offerings, highlights sacrifice as remedies of some diseases. It suggests varunapraghasa sacrifice to be useful for varunapasa disease like dropsy and sautramani sacrifice for crippled patients who are unable to move. Sayana explains that ritual sacrifices act as remedies of evils of the world and appear as medicine that are remedies of diseases. Sayana comments that by drinking the sannayyam one can be removed from the evil disease called jaundice.

In sacrificial sufferings Brahma is regarded as the best physician among the priests. From mythological explanation of sacrifice, it appears that Asvins are physicians of gods. Goddesses Sarasvati is considered as the healing medicine and God Indra as the energy or vital-power. Asvins, the physicians heal with help of Sarasvati the healing medicine that is prepared with help of Indra energy or vital power which is conferred to the sacrificer. Medicine was prepared with the help of finger ring and it is believed that Asvins the physicians travel from one place to another to heal.

## Supernatural world of Santals

The Santals have faith in balance and equilibrium between world of men and world of spirits. They believe that there are some supernatural beings that control their destiny and that the world comprises of ‘bongas’ of different orders, spirits of dead ancestors. These bongas have interest in matters of the next generation. The bongas wander about and interfere in the affairs of human beings. Bongas are of different types: forest bonga, mountain bongas, spring bongas, tree bongas, home bongas and underground bongas. There are benevolent bongas as well; they wish the well-being of the village people,

they are sorts of strength, valour, prosperity, peace and harmony. Some benevolent deities are Maran Buru, Jaher Era, Moreko-Turuiko and Sima Bonga. They are propitiated for good agricultural products and trouble-free harvesting; they are worshipped at family and community level. **(Rao; 2012)**

Maran Buru gives life to people for definite time; the Sun god causes day and night. He brings rain and bestows sunlight. He helps people to get good crops. He punishes too with starvation and deficiency if someone breaks rules of conduct and go against social taboos. Bongas are propitiated on several occasions or they would go for destruction. Santals believe that they are hungry, thirsty, angry and discontented. So sacrifices are offered to them so that they do not ruin health and happiness of people. They believe in rakshas and bhut, the Binties of Santals, the oral compilations passed on to successive generations, the sun considered as male God, the moon as his wife and the stars as their children. Santals distinguish constellations in sky with local names.

## Components of Sacred Belief among the Santals

**Naturalism-** Naturalism is a form of worshipping nature that prevails among the tribals. Sun, Moon, Earth are considered as creator or supreme power. The Santals consider Sun as Sing Bonga or Supreme God. The Santals equate Dharmesh, the supreme deity with Sun and regard it as husband of Dhatri Mata, the Mother Earth.

**Totemism-** Apart from the nature, the tribals consider themselves cognate with animals and plants in form of relation with plants and animals. The Santals have clans named after plants or animals or material objects. These tribes consider that totemic plants or animals have protected their ancestors of clan concerned or proved to be some peculiar service. They show reverence and do not destroy the totemic objects.

**Magic-** Magic is an integral part of the religion of tribals. Magic is at par with religion. Natural events, inadequate technical means and situations full of danger and uncertainty leads to belief in magical properties.

**Ancestor worship-** The activities of ancestors are evident for tribals and ancestor worship is an important place in religious beliefs. They recognize that man's power is restricted and has access to limited areas, through ancestor worship.

**Polytheism-** The Santals consider Chando or Thakur as a supreme being who is invoked on all occasions. Maran Buru is a deity of Santal community.

The tribals believe that they are fully surrounded by a number of gods or superpowers residing at all places. The entire tribal village and its vicinity may be treated as a sacred area of tribal deities. They believe that gods are not centred in a particular area of a village but are spread all over the region. Hence, the tribal village and hills and forests in its neighbourhood may be taken as a unit as far as a sacred area is concerned. The god of forest lives in nearby jungle whereas every stream, river, ditch, hill or hillock, old trees are the abodes of numerous other deities. The Santalshave an elaborate system of village worship centred in a sacred grove where the godlings of the village reside. The grove consists of a cluster of trees and it's a taboo to cut them down. It is Jajer or Jahira among the Hos and Santals. Two of the tallest trees the in grove standing side by side are deemed to be the seats of Marang Buru, the chief spirit of the Santhals and his female consort, JaherBurhi or old lady of grove. In a Santal house inside the house, a small space in a corner called Bhitar is set apart as an abode of ancestral spirits. **(Vidyarthi and Rai; 1985)**

## Ojhas in the Santal Society

The Ojhas are professionals who have ideas about vaids that can set fractured bones and do preliminary surgery. This proves the knowledge about human anatomy, along with knowledge of nature.

The Ojhas created a world of their own elected democratic council that ruled the society where they had their own unwritten code of conduct, trial court, tradition, folk lore and last but not the least an independent and regarded medical branch for treatment of the ailing tribes. Santals knows the root medicine for a certain disease which they apply when someone in their family falls ill; when their limited knowledge fails to bring any result,they summon a professional medicine man known as Ojha. The difference

between a medicine man and an Ojha. A medicine man has knowledge only about medicines and is known as Roranko whereas an Ojha has knowledge of medicines of various kinds and they even know about how to drive away the evil spirit by magic with assistance of his 'Bongas'. The word is derived from Hindi the word meaning 'Platt', a soothsayer, a magician, an exorcist who pretends to cast out evil spirits, to cure sake-bites by means of charms and incantation. He is capable of doing something that an ordinary people cannot do. It is believed that Santals learnt to become Ojha from an outsider who was called Kambru or Karam Guru, a man from Kamrup. Karam Guru was a Hindu as the 'Bongas' the Santal Ojha invoke bear Hindu names. Tradition came to the Santal society from outside. **(Mitra; 2009)**

It is not always clean to grow to be an Ojha, just because it is not always clean to become a health practitioner in our society. One has to discover an Ojha who has full information of indigenous drugs as well as Jharnis which might be required on different activities. The Guru teaches his disciple the way to diagnose a disorder, find out the first-class remedy and a way to use it on the patient. He also teaches mantras, invocations and songs when drug treatments fail to treatment the patient and the Ojha is required to take the assistance of the supernatural power to forge out evil spirit. It depends at the discipline how long the mastering manner will keep most of the scholars examine drugs, mantras and depart his Guru to start his profession.The most effective college students live back to learn approximately all Mantra, Songs, invocations, Bongas and witch-craft. The latter faculty of Ojhas command a unique location inside the Santal society.

**How do they function-** When any one of the Santals falls ill, the elder of the family applies the knowledge of medicines to cure the patient. As the Santals are very strong and can endure suffering, the medicines prescribed by the elders work with the patient. At times, when the medicines prescribed doesn't work on the patients, then they summon for an Ojha. The Ojha examines the patient, feels his pulse to be sure of ailments. If the pulse is felt at the thumb or index finger, the Ojha is sure that a house bonga is hungry and needs to be fed. They are experienced enough to read pulse in an arm of a patient. According to an Ojha, diseases are classified in four groups: natural causes that are easily cured by the application of medicines; human beings, especially woman and Bongas who are many in number dwell in the outskirts of the village. They

are considered as evil and are satisfied with sacrificial blood and the ancestors of the family whose spirit bear grudge.

The medicines for veterinary diseases are an aspect of tribal medicine. Their magico-religious beliefs are aspects of faith healing and they have collected 2000 tribal prescriptions for curing various such diseases. The Ojhas combined physiotherapy with faith-healing backed by herbal lore. Some diseases are psycho somatic and some are mental diseases. Ojha applies the primitive version of shock therapy; they utter incantations in a way of faith healing that emboldens the patient to fight sickness. As a part of naturopathy, air, water and earth are its elements. Mahatma Gandhi was fond of it as it was within the reach of the poorest on earth. The core of the Santal medicine was their knowledge of an entire range of herbs in the forest on which the use of all systems of medicines depend.

## Magico-religious methods

The Ochai is generally the specialist within the artwork of magic in addition to herbal medic with the performance of magical rites he is believed so that one can cure on ailing guy and at the equal instances he also performs the position of the village doctor. After watching the diseased man or woman, the Ochai tries to understand why and the way that man has fallen unwell. If any evil spirit is answerable for the infection, the Ochai plays magical rites as a device of remedy to pressure away the evil spirit that brought about the illness. To drive away the spirit the Ochai on occasion blows over the patient with utterances of incantations which is said to be effective and curative for the disease. in any other case, for this purpose, the Ochai plays ritual ceremonies. In the ritual he sacrifices fowls, pigeons, goats, etc. and utters incantations to get rid of the spirit. Those incantations are one of a kind for one-of-a-kind infection and the animals to be sacrificed in the rituals also vary. Santals believe in adverse effects of dayin, dayini or witch. Man is a dayin and woman a dayini on suspicion of possessing control over evil forces. Dayin or Dayini have the power to unleash evil forces on people resulting in ill health and problems. The ojha or janguru identifies the dayin or dayini; they are socially ostracized and penalized **(Rao; 2012).**

## Medical specialists among the tribals

Tribals believe in supernatural and religion in matters of health. They are found to response faith in diviners of traditional medicine men, sorcerers, shamans. Role of priests is seen in non-tribal communities for praying towards high gods as rare among tribal communities. For treatment of diseases. The inferior deities, spirits, ghosts are appeased and shamans are employed for the purpose. Anthropologists have occasionally viewed shamans as holistic healers who function as alternative model for healing to mechanistic allopathic physician or surgeon who is constrained by Cartesan assumptions about separation of mind and body. Shamans play crucial role in society in carrying on traditions of past and in maintaining social order. Few anthropologists have invented the shamans as possessing social moral functions as association that seldom exists in non-urban cultures. Members of counter-culture movements have rejected explicitly and implicitly perceive to western cosmological and social systems and strive to promote shamanistic world-view.

Tribals live in groups and modern forces have been moulding their life; culture is dynamic, tribals have faced and is facing changes in its cultural aspects of life. The tribes have retained principal elements of their ways of life though they are modified to more or less extent. The traditional process characterized by impact of traditions of major neighbouring communities on tribals has been in operation and led to resultant concepts. The modern process include factors like tribal development, community development schemes, democratic set-up of nation, modernization in education, communication and administration of more recent origin. Directly or indirectly external factors do not emerge as a result of normal contacts of tribals with non-tribals of area. Tribes especially the Oraons, Santal, Munda, Bhill and Gond have been influenced by Hindu neighbours and have taken advantage of community development programmes and accepted the use of improved seeds, fertilizers and introduction of cash crops. The health programmes with introduction of modern medicines are less popular in less isolated villages.

Considering the above stated issues, the present researcher has tried to work on these areas restricted to the tribe especially Santal tribes.

## Objectives of the Study

Research objectives are vital step of any kind of research. Each and every research should have certain definite objectives. Without particular objectives, research cannot be completed successfully.In the topic entitled **"Indigenous Medical Practices among tribes: A Sociological Study in Bankura district of West Bengal",** here, the present researcher has some basic objectives for carrying out the research. The objectives of the study are:

1. To find out the indigenous medical practices among tribals in Bankura district.
2. To know the socio-economic status of tribals in Bankura district.
3. To know whether tribal people have strong belief on indigenous medical practices.
4. To know the education level of advisor (medicine man).
5. To find out the preservation method or process of medicinal plants for the whole years or during crisis period.
6. To know the role of aged or elderly parents of indigenous medical practices.
7. To explore the rules and regulations for using indigenous medical practices.
8. To find out the percentage of tribals who do not follow indigenous medicine.
9. To know the rules and regulation for using the plants.
10. To find out the impact of indigenous medical practices on everyday life of tribals.

# CHAPTER – 2
# REVIEW OF LITERATURE & THEORITICAL ORIENTATION

# REVIEW OF LITERATURE

A literature review can be a short introductory section of a research article or a report paper that focuses on recent research. An attempt has been made to complete and deduce important findings from these reviews in order to find out the research gaps. Literature based on Indian as well foreign context is considered here for the study.

- P.O. Bodding (2011) in his famous book entitled **"Studies in Santal Medicine and Connected Folklore".** He revealed the connection of santal folklore with the unique attitude of the Santals towards various diseases and their treatment. Santals embrace a belief that diseases are caused by malevolent powers who are to be satisfied and appears through various attempts made by professional medicine-men, generally called Ojhas. Bodding collected the folksong current in the santal community, with the chanting of which the santal people try to pacify the spirits who are believed to be the originators of diseases. Bodding thoroughly travelled the places inhabited by the Santals, learnt Santali language, gathered experience about the social and religious customs of the Santals and all these are reflected methodically and mixed himself closely with the people having a distant culture and home-bred language and shown deep dedication to the study of the socio-religious fabric of the santal people.

- G.S Lavekar (2008) in his edited book entitled **"Tribal Health Care Research".** He described that India has a rich and time tested heritage of medical and health sciences. These systems have evolved based on flora, fauna, metal, mineral and animal bio-resources available in the vicinity.

- B. Malinowski (1922) in his book entitled **"Argonauts of the Western Pacific"** emphasized that, the belief and practices are not taken from the air, but are due to a number of experiences actually lived through in which man receive revelation of his power to attain the desired end.

- M. Marriott (1955) in his writing **"Western medicine in a village of Northern India"** and in B. D. Paul's edited book entitled "Health, Culture and Community"

depicts his study on the village Krishan Garhi in Aligarh district of Uttar Pradesh. This study tries to explore the problems of introducing western medicine in the Indian village community. Marriott has shown how the contracts and conflicts between the roles assumed by the indigenous and western medicinal practitioners resulted in obstacles to the acceptability of western medicine.

- M. Chakravarty and C.S. Singhrol (1989) in **"Socio-Cultural and Environmental Aspects of Health and Nutrition"** in A.N. Sharma's edited book "Anthropology: Some Socio-Demographic and Nutritional Aspects of Health". They pointed out that indigenous medical system among the tribes of Bastar could be divided into two groups namely ritual and herbal medicine. The tribal people are specialists in identifying, propitiating or controlling the evil-eyes which are generally believed by them to be the fundamental cause of most of the diseases. Diseases are also caused by unsatisfied souls of dead ancestors and names of dead persons are given to the grandchildren to convince the souls that they are remembered. They perform rituals, prayers and offerings to the deity. During seasonal festivals connected with economic life, they perform dances and music to ward off diseases and natural calamities. In the second category of medicine-men are the herbalists who do not enchant mantras, though they use herbs. Such herbalists are trained by their father and they practice their familiar profession.

- S. Mahapatra (1990) in his famous writing **"Cultural Patterns in Health Care: A view from Santal World"** in B. Chaudhuri's edited book entitled "Cultural and Environmental Dimensions of Health". He analysed the Santal view of health and sickness ,diseases and death and also discussed the nature of linkage between traditional medicine and modern system of and also the mechanism of exorcisms, spirit healing and medicine preparation. It has been observed that poor health status reflected in tribal health care practices is the outcome of their ecological, social and living conditions, illiteracy and ignorance under availability of potable water and inappropriate medical and health opportunities. Indigenous and modern health care system of practices continues to be antagonistic to each other. A brief review on the available health indicators on various tribal population groups and their implications in health care is provided.

- K. Viswanadha Reddy (2011) in his renowned book entitled **"Tribe Ethno-Medicine and Health Care Practices".** He focused on the healthy condition of the body is the gift of the God. Hard work from dawn to dusk makes one hale and healthy according to tribal people. Idleness is also responsible for disease, they attribute natural, supernatural, natural-cum-supernatural and effects of environment on personal health that causes disease. Among the tribals the sickness is cured by administering ethno-medicine, otherwise known as folk medicine. Mostly the aged persons are experts in diagnosing and curing various diseases. Sometimes the patient may try self-medication or treat himself with the help of other members in the family. The ethno-medicine consists of herbal applications of oils and mixtures. This treatment is largely restricted to rest, diet and exercise rather than drugs. Evil diseases are cured by the tribal shaman by chanting mantras using black magic. The local experts are paid something either in cash or kind as reward for their service rendered to sick people. This will further help to disseminate and promote awareness of the richness of cultural heritage particularly among the tribal society.

- S.R. Myneni's (2006) book entitled **"Sociology for Law Student":** He discussed about ethics and morality are generally influenced by religion. Religion minded people believe that theft, violence, dishonesty, telling lie and fidelity amount to committing a sin and the person committing such sin is doomed to go to hell, Peace, love and righteousness prevail in society due to the influence of religion. In modern society, science and technology control the nature of economic life of the people. The modern society cherishes the values of nationality and secularism. Since religion is based on mere belief in the factually unknown and unknowable and not on reason, it does not hold its significances strongly in modern societies as-in the traditional ones. Science and technology can't dispense religion altogether. What has happened in the present modern society is that religion has undergone changes along the changes in other aspects of social life.....while religion works as an integrated force in society, it also becomes the cause of strife and communal tension. Some self interested sections succeed to arise hatred in one religious community leading to occasional outbursts of communal violence. The

present-day international terrorism is an evidence of notorious activities of a section of religious community in the name of religion.

- Linda Clark (1972) in his renowned book entitled **"Nature's way to Health":** He described that, it would have been very thoughtless of nature to create such complex living machines as insects, birds, mammals, or man himself without at the same time providing fuel to keep them running or remedies to keep them well. Fortunately, nature was not thoughtless She has supplied these resources which are, in their way, as wonderful as the body machines themselves. Wild roots, herbs, berries, grasses, even flowers have been found to contain food or healing elements. Wildlife has always instinctively found food and natural remedies. Botanic therapy-the use of naturally grown, sun-dried tonic and cleansing herbs, roots, leaves and barks-has also played an important role in human health from the beginning of time. There is no good reason why we can't continue to take advantage of it today. Among the ailments, the Chinese believe that folk medicine can cure gallstones, kidney inflammation, whooping-cough, scarlet fever, mumps, measles, cirrhosis of the liver, prolapsed uterus, typhoid, meningitis, encephalitis, influenza, pneumonia, tuberculosis, infectious hepatitis and acute bacillary dysentery. More than 1,000 herbs are used for curative purposed in Russia, according to a statement describing the collaboration of Soviet scientists and the medical academy. These herbal remedies constitute 40 percent of the curative therapy of the Soviet Union.

- Sujit Debnath (2018) in his paper **"Lack of Ethics in Medical Practices of India"** in Jayanta Choudhury's edited book entitled Tribal Health Issues, Challenges & Way Forward". He described that in modern time allopathic medicine has come to India because of several reasons and that rapid developments in the medical field in the last century have revolutionized the field of medical practices, but yet it has several disadvantages like: there is an unequal distribution of health service between the poor and the rich, the rural and the urban population and also between tribal and non-tribal people. Sometimes we see the patient who requires very high quality treatment are often given only palliative

treatment. Besides these, there exist some other parts also that appear as unethical and which are still present in the Indian medical field.

- Dr. K. Anuradha and P. Sindhuja in their paper **"Health Problems of Tribal Woman: An Overview"** edited by K. Viswanadha Reddy's book entitled "Tribal Ethno-Medicine and Health care practices"(2011): They emphasized that health of the people is not only a desirable goal but is also an essential investment in human resources. Health status is a crucial variable which influences the average expectation of life, number of persons in the productive age bracket, production, productivity, earning capacity and family welfare. It may be stated that a country's progress depends on the health of the people. Health implies a sound mind in a sound body in a sound environment. Control of communicable diseases through national programmes and development of trained health manpower have received special attention.

- Ralph Tanner and Colin Mitchell (2002) in their book entitled **"Religion and the Environment":** They discussed how the tribal societies extend into new areas where they meet new challenges. The traditional religion of the Chagga tribe of Mt. Kilimanjaro has been almost entirely replaced by the literate Christianity, although this has not prevented a continuation of traditional religious practices. The tribe’s conversion has contributed to a rise in population through improved health and education, causing it to expand beyond a limited area of temperate rainforest and to colonize further and further down the mountain into the drier plains below.

- Rupajit Das (2018) in his writing **"Ethno-Medicinal Uses of plants by Indigenous Tribal Medicine Practices of Sepahijala district of Tripura and Improvement of Tribal Health Status"** in Jayanta Choudhury's edited book entitled Tribal Health Issues, Challenges & Way Forward". He described that tradition of ethnomedicine practice has been continued in the study area since ancient times with the help of indigenous tribal practitioners (Kavirajes). Kavirajes generally work with different plants, particular parts of plants, plant extracts or use extracts in different combination for the treatment of various ailments of tribal

people and others. In spite of its acceptance, the knowledge of kavirajes on ethnomedicine are not properly documented and preserved. A total of 30 different medicinal plants were recorded along with their vernacular names, parts used and mode of utilization by indigenous tribal practitioners(kavirajes) and tribal people of that area. The present study revealed that tribals are primarily dependent on medicinal plants for the treatment of different diseases at minimum cost and have to improve their health status.

- S.N. Power and R.B. Patil's book entitled **"Sociology of Environment"**(ed.) where Sangita Gujrati's article forest and tribals: An exploration into relationship discussed that every tribe had a set of trees, plants and animals, often presented as totem, that forests were also protected by restricting exploitation to certain seasons or certain stages of life. For example, pregnant animals could not be killed. Finally, restrictions were placed on quantity exploited, special sacrifices were made to the forest gods and goddesses before cutting a tree or before hunting. These religious myths and social customs together ensured egalitarian distribution.

- Frances Kennett in his famous book **"Folk Medicine Fact and Fiction"**(1976): described that Folk Medicine is a very general term covering a wide variety of medical traditional or superstitious practice. All of them have certain features in common which help to explain why they survive so long and why people have accepted them through the ages. The origin of folk medicine obviously links up with other significant areas of man's experience, such as his god worship or his understandings of the forces of nature. It has naturally inherited many magical elements from such background and effective cures are typically assumed to have non- rational explanations. The apparent lack of causes of the major features of many folk remedies is both strength and weakness. Firstly because everyone loves a mystery and is very ready to believe in a miraculous success. Secondly because many people go on doing thing to these bodies they have faith in the ritual itself without acknowledge scientific evidence that the process is dangerous.

- Dr. Ramachandra Reddy, N. Amareswaran and C. Manchala (2011) in his writing **“Impact of Education on Ethno-Medicine and Health Care Practices Among**

**the Tribal People of India"** edited by K. Viswanadha Reddy's book entitled "Tribal Ethno-Medicine and Health care practices": He emphasized that we must protect the forests for our children, grandchildren and children yet to be born. We most protect the forests for those who can't speak for themselves such as the birds, animals, fish and trees. The Rigveda, the oldest document of human knowledge mentions the use of medicinal plants in the treatment of man and animals. Ayurveda gives the account of actual beginning of the ancient medical science of India which according to western scholars was written between 2500 to 600 B.C. Charaka and Susruta wrote around 1000 B.C. Charaka concentrates more on medicine while Susruta deals with surgery along with therapeutics. Ethno-medicine refers to "those beliefs and practices relating to disease which are the products of indigenous cultural development and are not explicitly derived from the conceptual frame work of modern medicine "(Hughes,1968, cited from Misra et ai,2003). Various institutions are now concerned with the traditional health care system and means of traditional treatment.

- Dr. Nanigopal Debnath & Dr. Deepak Upadhaya (2018) in his famous paper **"Ethno-medical practices among the Reang Tribes of Tripura"** in Jayanta Choudhury's edited book entitled "Tribal Health Issues, Challenges & Way Forward": He described that magico-religious method like the Ochi is generally the specialist in the art of magic as well as herbal medicine. With the performance of magical rites he is believed to be able to cure an ailing man. At the same times he also plays the role of the village physician. After observing the diseased person, the Ochai comes to know why and how that man has fallen ill. If any evil spirit is responsible for the illness, the Ochai performs magical rites as a device of treatment to drive away the evil spirit that causes the illness to drive away the spirit. The Ochai sometimes blows over the patient with utterances of incantations which is said to be effective and curative for the ailment. Otherwise, for this purpose, the Ochai performs rituals. In this ritual he sacrifices fowls, pigeons, goats, etc. and utters incantations to remove the spirit. These incantations are different for different illness and the animals to be sacrificed in the rituals also vary.

- Jhijhit Poddar's (2012) in his writing "**AdibasiBhababnaiLokochikitsha O Lokoprojukti"** in Dr. K. Mishra and Dr. Amrita Dutta's edited book entitled" Exploring the Conditions of Tribal People and Their Culture in West Bengal" described about the use of Medicinal plant very scientifically as cure physical weakness, hook-warm and liver function and also opined that we should have use Kalmegh with sugar and turmeric does like 3-4 drops of Kalmegh and 3-4 drop of turmeric with sugar as necessary.

- Rajendra Menen (2004) in his book entitled **"The Miracle of Music Therapy" He** emphasized that research has proven that mothers require less pharmaceutical pain relief during labor if they make use of music. Using music that is familiar and associated with positive imagery is the most helpful. During early labor, this will promote relaxation. Maternal movement is helpful to get the baby into a proper birthing position and dilate the cervix.

- Subrata Pahari (2015) in his famous book entitled **"Adhunik Banglaya Ayurved Chikitsa":** He examined that ayurveda is the most sacred science of life beneficial to human both in this world and world beyond. It wants that all men should be healthy, fit in body and keen in mind and they should maintain this state as long as possible; the ultimate ends being mundane happiness and spiritual elevation.

- Dr. P. Rajyalakshmi (2002) in his book entitled **"Edible Forest Foods of Tribals in South India"** discussed on a number of important conceptual and substantive issues. It is also of great relevance as the information provided in it serves as a useful guide to all national and international scientists in the field of food science and technology, health and nutrition, agriculture, botany and biotechnology.

- Happy Majumder (2018) in his famous writing **"Traditional Medicines of Tribals of Tripura"** in Jayanta Choudhury's edited book entitled Tribal Health Issues, Challenges & Way Forward". He focused on how folk medicine has been playing an important role in the rural life of India. Starting from ayurvedic period up to the present century tribal people mostly rely on folk-medicine. The tribals of Tripura use herbal medicine for various diseases.

- M.E. Opler (1963) in his book, **“The Cultural Definition in Village in Human Organization”,** said that, 'different diseases found among the tribes and peasant people are due to the malfunctioning imbalance of forces, which control health, lack of moderation or inappropriate behaviour in physical, social and economic matters'.

- K.A. Hasan (1967) in his book, **“Cultural Frontiers of Health in Village India”,** noted two types of social and cultural factors that affect the health of any community. He also noted : High percentage of positive correlation between folkloric use and Pharmacological efficacy is significant because it proves the scientific basis of ethnobotanical preparations and their usefulness in the treatment of various diseases.

- Bruce Goldberg (1997) in his book titled **“Soul Healing”** describes the chapter 'Shamanic Healing' and it reveals that shamanism is a religious phenomenon restricted to Siberia and Central Asia.

- Bronislaw Malinowski (1948) in his book entitled **"Magic, Science and Religion and other Essays":** He described the need for the prominently overt and collective nature of religious acts and for the universal of moral principles and we also realize clearly why this is much more prominent in primitive religions than in civilized ones. Public participation and social interest in matters of religion are thus explicable by clear, concrete empirical reasons and there is no room for an entity, revealing itself in artful disguise to its worshippers, mystified and misled in the very act of revelation. The fact is that the social share in religious enactment is a condition necessary but not sufficient and that without the analysis of the individual mind, we cannot take one step in the understanding of religion.

- Robert Nisbet (1976) in his famous book entitled **"Emile Durkheim: The Elementary Forms of the Religious Life".** He focused on men having an interest in knowing the world which surrounds them, and consequently that their reflection should have been applied to it at an early date, is something that everyone will

readily admit. Co-operation with the things with which they were in immediate connection was so necessary for them that they could not fail to seek a knowledge of their nature. But if, as naturism pretends, it is of these reflections that religious thought was born, it is impossible to explain how it was able to survive the first attempts made and the persistence with which it has maintained itself becomes unintelligible. If we have need of knowing the nature of things, it is in order to act upon them in an appropriate manner. But the conception of the universe given to us by religion, especially in its early forms, is too greatly mutilated to lead to temporarily useful practices. Things become nothing less than living and thinking beings and minds or personalities become like those which the religious imagination has made into the agents of cosmic phenomena.

- L. P. Vidyarthi and B. K. Rai (1985) in their famous book entitled **"The Tribal Culture of India".** They described that the tribal people's radical thought is in the mythical tales which envisage in themselves the stories and explanations about the origin of the world, stars, etc. They have a number of legends which have given their simple, but at the same time fantastic ideas about their traditional history, about the history of man and the ways of women, about the creation of the world, sky, earth, sun, moon, water, thunder and lighting. They also dwell on such things as fire, disease and death and reveal the elemental faith of the unsophisticated tribal people. Some of the myths reveal the wisdom of the tribal people derived largely from their observations of other earthly creatures like dogs, frogs, fishes and birds. Though living in the innermost recesses of forests, they are conscious of realities.

- Bronislaw Malinowski (1948) in his book entitled **"Magic, Science and Religion and other Essays".** He examined that the annual feast, milamala is a very complex social and magico-religious phenomenon. It may be called a "harvest festival", as it is held after the yam crops have been harvested and the food houses are full. But, remarkably enough, there is no direct, or even indirect, reference to field activities in the milamala. There is nothing in this feast held after the old gardens have yielded their results and the new ones are waiting to be made, which would imply any retrospective consideration of the past year's gardening or a

prospect of the future year's husbandry. The milamala is the dancing period. Dancing usually lasts through the moon of milamala only, but it may be extended for another moon, or even for two. Such an extension is called usigula. No dancing proper takes places at other times of the year. The milamala is opened by certain ceremonial performances connected with dancing and with the first beating of the drums. This annual period of feasting and dancing is, of course also accompanied by a distinct heightening of sexual life. Again, there are certain ceremonial visits associated with gifts and with such transactions as buying and selling of dances.

- Jagannath Pati (2004) in his renowned book entitled **"Media and Tribal Development".** He described that tribal region are very rich in terms of cultural heritage. But the poverty induced life cycle affects most of the people here in this remote area. A lot of people were marked to have malnutrition growth retardation and ill health in the area. Drinking water is managed through deep wells and tube wells. Most of the tribal males and females take liquor (Hardia) quite frequently. In day-to-day life, people usually use traditional medicines (Jaddi- butti etc.) and allopathic medicines from the village practitioner. Allopathic medicine practitioner who could reveal the fact that he had no formal training in the profession with his minimum knowledge of some medicines, had to encounter no problem while dealing with his patients. For several health problems, very few can afford to reach Khunti or Ranchi for better medical care.

- D. Awasthi and M. Mitra (2002) in their famous writing **"Ethnomedicinal Practices and Mantra Therapy: Focus on Birhor Tribe, Chhatisgarh"** in M. L. Patel's edited book entitled "Global Perception of Tribal Research in India". They focused on the tribal people believe that diseases are caused when on evil spirit gets in to the body of a person and person must get rid of the evil spirit to cure himself. This according to them, can be done by a traditional tribal doctor (this medicinal man known as ‘Baiga’) by several ways. Birhor invariably have a preference for the local medical practitioner (Baiga)for treatment because Baigas are reputed as healers having some kind of supernatural power. Baiga uses various charms to cure the diseases. These charms are not mere sounds, they have certain significance and meaning. These charms are kept hidden and it requires a lot of

painstaking effort to get any knowledge about their charms. An honest effort has been made in this research to throw light on these hidden wonders.

- Kamal K. Misra (2002) in his writing **"Commercial Forestry and the Indigenous people in India - A Retrospection"** in M. L. Patel's edited book entitled "Global Perception of Tribal Research in India". He focused on indigenous people that are worst affected by large scale deforestation, as they have been living within or in the vicinity of forest since millennium. In post-independence, forest policies in India have over played the commercial aspect of forestry and the contradictions between commercial forestry and the human dimension of people forest relationship. Finally, they will touch upon the green agenda of participatory management of forest ecosystem and people's response to it. The customary right of the Adivasis over access, control and management of forest resources are completely denied, which they have been enjoying for millennia. Their moral obligation of conserving and protecting forest as a sacred religious duty is not recognized. Contrarily, they are suspected as forest criminals, whose premises could be raided at any time. This mistrust largely demoralized them, and tarnished their self-esteem which they value more than material assets. They have to do away with their traditional ritual hunting expeditions which are more of a religious obligation for them, as it attracts stringent punitive action by the government. Gradual alienation from the rich biological diversity is making them poor in their indigenous environmental knowledge for which they were once looked at with high esteem. Their knowledge of herbal medicine is gradually on the decline. Bureaucratization of administration and introduction of court, rent, fees, stamps etc. contradict their practice of oath and ordeal. Their lives are considered to be less important than the lives of the wild animals in the protected areas, which humiliated them. They lost opportunities and power because of their alienation from their home -land or were forcibly converted into paupers in their habitat, when outsider "elites" dictated terms over them. For their basic survival, they were forced either to indulge in bribing the forest officials or surreptitiously continue with illegal activities as no other alternative was left to them.

- Chittabrata Palit (2009) in his famous writing **"Santals and Public Health"** in Dr. Goutam Buddha Sural's edited book entitled "Aspects of Tribal Life". He focused on the tribals indigenous medical practices, their medicine into three categories Allopathy and Homeopathy and their traditional medicine. Each category is further looked divided into three sections:(i) Santals and sanitation(ii) Santals Medicine (iii) Santals health care. In the first section he talks about the scientific way of living that the Santal community follows and how they take care of sanitation in their private and public life. In section two, the author enlightens us with the tribal medicines used by the Santals for different diseases and ailments like headache, high fever, smallpox, diarrhoae etc. along with its way of natural treatment and medication through herbal products. Santal's community identity is greater than their individual identity. There is perfect communal harmony among the members of the village. Tribal people believe about the nature of diseases, its causation and cure and its relation with other aspects of group life.

- Sutapa Sengupta (2009) in her famous writing **"Tribal way of curing Diseases "** in Dr. Goutam Buddha Sural's edited book entitled "Aspects of Tribal Life". She reflected that concentrated tribe signifies a 'race of people' who inhabits in the their mother as well as doctor, therefore, through ages the ethnic people acquired knowledge about nature and left a huge storage of knowledge-based experiences about the healing potentialities of the plants and herbs, fruits and flowers, stems and barks, organic and inorganic elements within our nature. Some among them take up this knowledge professionally and in due course of time they appear as 'Ojhas'. These professional people are usually very skillful vaids who possess a vast knowledge about the surrounding plants and herbs having therapeutic value. These vaids can set fractured bones and also can do some preliminary surgery. This proves their knowledge about human anatomy, along with their knowledge of nature as a whole. Their main areas of concentration are hydrotherapy, mud therapy, urine therapy etc. However, they also described the mode of treatment, such as hydrotherapy which can be carried on through different ways like tub bath, hip bath, steam bath etc. Tubs of different shapes and sizes are used as per the needs of the patients. In this therapy the lower portion upto the upper abdomen of a body according to the nature of ailment, remains in the warm water for at least

half an hour to forty five minutes along with a piece of wet cloth on the patient's head. This therapy is proved to be effective for Arthritis, Constipation, Irritable Bowel syndrome, Piles etc. Mud therapy is another way of ethnic treatment. The method of treatment is also very unique to us. Only the alluvial soil dug out from 7-8ft depth of the riverbed is used for this kind of treatment. 1/2 thick coat of fresh alluvial soil is to be applied to the affected areas for half an hour to forty five minutes regularly for a few days to cure the ailment. Natural healing of various skin problems through 'Atapsnanam' or sunbath is not an unknown phenomenon to the indigenous people. In modern days these naturopaths are effectively applying this mode of treatment to cure skin diseases of different kinds. The therapists also apply the Vedic method of yogic treatments to cure different ailments and also to enhance the physical and mental strength of a person. Along with this they teach pranayama or the control of breathing as a method of building up inner strength to combat ailments. This wonderful knowledge to relieve the pangs of ailments and also to cure the patients fully may well serve as an effective supplement to enhance the knowledge of modern methods of treatment.

- Nirmalendu Bikash Mitra (2009) in his writing **"The Role of Ojhas in the Santal Society"** in Dr. Goutam Buddha Sural's edited book entitled "Aspects of Tribal Life". He focused on their physicians who are known as medicine man or 'Ojha' in the Santal Society. Every Santal knows the root medicine for a certain disease which he applies when someone in his family falls ill. But when his limited knowledge does not bring in any result, the professional medicine-man, the Ojha is called in. There is a difference between a medicine-man and an 'Ojha' A medicine –man who is also called Raranko knows only about medicines whereas an 'Ojha', in addition to his knowledge of medicines for every kind of disease, knows how to drive away the evil spirit by magic with the assistance of his 'Bongas'. The 'Ojha' finds out whether there is any supernatural power behind a certain disease and employs his 'Mantra' to subdue that supernatural power. Therefore, such 'Ojhas' are believed to possess skills even to tame the supernatural powers and so command more respect from the common Santal. It is an established fact that the medicine-man (Raranko) are honest in the sense they try to cure a patient to the best of their ability whereas the Ojhas generally deceive their community people

with their doubtful activities. The superstitious belief of the Santal society which, even today, believes the role of witches behind incurable diseases and how the Ojhas or Jans are called to detect and identify the witch. It is not easy to become an Ojha, just as it is not easy to become a doctor in our society. One has to find out an Ojha who has full knowledge of indigenous medicines as well as mantras and Jharnis that are required on different occasions.

- Sitakanta Mahapatra (1986) in his famous book **"Modernization and Ritual Identity and Change in Santal Society".** He examined that the traditional folklore of the tribe, and its willingness to accept pain as something that must be tolerated. But sometimes the pain is not tolerated. There is an implicit belief that Maran Buru has provided remedies against different ill, and it is only a question of discovering them. There is no objection regarding medicine, but often it is considered only as supplemental. Physiotherapy, massage and fomentation are quite popular, as are indigenous medicines made from plants and trees, herbs and roots. There has not been any proper pharmacological investigation into these local medicines, so it is not known if they are valuable. But the Santals are convinced that the administration of medicine has to be supplemented by the practice of exorcism and divination. The approach to medicine as a method of curing diseases is getting more and more eclectic. As new dispensaries, doctors and family planning workers are becoming more common in the interior villages, there is a growing responsiveness to the modern medical system and its proven benefits. The initial approach is no doubt hesitant and on occasions, even hostile. But in cases of certain common diseases such as stomach upsets, skin diseases or fevers; allopathic medicines are getting a favorable reception. But the Santal has not been very adaptable to modern medicine. Dispensary records in the interior Santal villages show poor attendance both in the outdoor and indoor wards. It is no doubt partly due to distances involved and partly due to the unwillingness to experiment with unknown medicines. Modern medicines have not been accepted by the Santal as a system which has significantly reduced either mortality or disability. Santals prefer traditional medicines to modern medicines.

- Suchibrata Sen (1984) in his book **"The Santals of Jungle Mahals (An Agrarian History) 1793-1861".** He emphasized that the term 'Jungle-Mahals' was quite well known long before the English penetrated the area. The area which was known at the time of Akbar formed a part of CircarGoalpara. At the time of Murshid- Quli Khan the area was transferred in 1722 to Chakla-Midnapur which was ceded to the East India Company in 1760. Between 1760 to 1805 though there had been no officially recognized administrative unit as Jungle-Mahals, several jungle tracts in the districts of Birbhum, Burdwan, Midnapur and Purulia were known as Jungle Mahals. The system of Cornwallis introduced in 1793 was not an end in itself. It ushered in a new era in the economic history of Bengal in the late eighteenth century. The new set up not only aimed at establishing some kind of order in a confused state of the economy since 1765, which was convenient for the English; but it brought in its wake new complications that affected different segments of the people in Bengal in different ways. It is well known that the setup of 1793 was introduced, keeping in view the conditions in lower Bengal and particularly those in settled areas. It is well known that the setup of 1793 was introduced keeping in view the conditions in lower Bengal and particularly those in settled areas. But the set up was soon to penetrate deep in other distant areas inhabited by the tribal people whose structure, age-old beliefs and notions, social and economic patterns were quite distinct from those of the rest of the people of Bengal. The impact of the new set up introduced in 1793 on a predominately tribal area and a study of the tension it had produced among a particular tribal group would, therefore, be a fascinating enquiry. This impact had presented a profound challenge to the entire economic and social fabric of the tribal people as a whole and it did not remain unanswered. The erstwhile area known as the Jungle-Mahals and the Santals, the major tribal group of people inhabiting that area, have been taken up for an enquiry into the impact of the new set up since 1793.

- C.C. Hughes (1968) in his famous book **"In International Encyclopedia of Social Science".** He defined that a body of belief about the nature of diseases, its causation and cure and its relation with other aspects of a group life. There exist therapeutic and preventive practices, many of which are empirically efficacious by

standard of modernization but one common character is its close integration with other institutions of society, religion, medicine and mortality.

- S. K. Basu (1993) in his book, **"Health problems and Health care of the Tribal Population of India"** in N. Mahanti (Ed.) "Tribal Economy and Wasteland Development": He examined that the concept of health, disease, treatment, life and death among the tribes is as varied as their culture. Tribal society is guided by traditionally laid down customs to which every member is expected to conform. The fate of the individual and community depends on their relationship with unseen forces which intervene in human affairs. If men offend them the mystical powers punish them by causing sickness, death or natural calamities. In tribal society, diseases seem to be caused by the breach of some taboo or by hostile spirits or the ghosts of the dead.

- Manoshi Das & Prankrishna Banik (2016) in their book entitled **"Reproductive and Child Health Care & Practices: Reang Tribes in Tripura".** They focused on the Constitution of India that gives recognition to a category of people designated as the Scheduled Tribes and makes special provisions for their political representation and their economic and social welfare. India has the largest concentration of tribal communities in the world except that in Africa. The tribal groups of India are known to be the autochthonous people of the land. In different concentration throughout the country are distinct biological isolates with characteristic cultural and socio-economical background. Although their groups are homogeneous, culturally firm and have developed strong 'Magico-Religious' health care system, they wish to survive with a livelihood of their own style. Tribals are strong believers in the natural theory of diseases. According to them, human life is governed by the Sun, Rain, Winter and other elements and when man falls out of harmony with nature, he becomes susceptible to disease and accidents. The tribals believe in the existence of benevolent and malevolent spirit, the former playing a protective role, while the latter are considered to be responsible for causing disease and epidemics. 'Magico-Religious' practices are resorted to for the treatment of diseases. Hence, the first step is to restore the balance and harmony with nature through rituals. Among Khasis and Jaintias tribal

population for instance there exists a scientific theory of diseases which to them is as natural as the theory that infections are caused by bacteria. The widespread poverty, illiteracy, malnutrition, absence of safe drinking water and sanitary living conditions, poor maternal and child health services, ineffective coverage of nation health and nutritional services have been traced out in several studies as possible contributing factors for dismal health conditions prevailing among these vulnerable populations. In many parts of India the tribal population suffers from chronic infections and diseases out of which water borne diseases are life threatening. They also suffer from deficiency diseases. The Himalayan tribes suffer from goiter due to lack of iodine. Leprosy and tuberculosis are also common among them. Infant mortality was found to be very high among some of the tribes. Malnutrition is common and has affected the general health of the tribal children as it lowers the ability to resist infection, it leads to chronic illness and sometimes leads to brain impairment. The health problems and practices of any community are profoundly influenced by interplay of social, economic and political factors. The tribal have strongly common beliefs, religious customs and traditional medicine practices connected with health and diseases have been found to be intimately related to the treatment to diseases.

- S. Chinna Redaiah (2011) in his famous writing **"Folk Medicinal Plants among the Tribal of Kuppam, Chittoor District, Andhra Pradesh"** edited by K. Viswanadha Reddy's book entitled "Tribal Ethno-Medicine and Health care practices". He described that with the advent of human civilization many systems of therapy have been developed primarily based on plants. Ayurveda, Homeopathy, Sidda, Unani, etc. are our traditional systems of medicines. Living close to nature, traditional societies have acquired unique knowledge about the use of wild flora and fauna and most of the tribal people who live away from such natural ecosystem as forests. Women have traditionally been the keepers of knowledge regarding folk remedies and the providers of household medicine. This loss of knowledge is intrinsically linked with shifting socio-economic dynamics in the area and is not expected to be reversed .This reinforces the importance of recording ethno-medical and ethno-biological data now before it is lost with the passing of the oldest generations. Culture, art, belief, folklore and knowledge is

based on their tradition. The traditional knowledge, skill and practices thus developed are freely exchanged, cared for and nourished as a common property of the communities. The value and importance of traditional knowledge is now being increasingly acknowledged all over the world.

- V. Sujatha (2014) her book entitled **"Sociology of Health and Medicine New Perspectives".** She described that traditional systems of medicine in Africa, Latin America and Asia continue to have a legacy and coexist with biomedical services which the government's support. In the traditional medicine sector, medicinal knowledge is seen as a special gift which may be shared within the village community and sold only to outsiders. Even today this is a common feature of traditional systems.

- P.A. Twumasi (1972) in his famous writing **"Ashanti Traditional Medicine".** He looked on traditional medicine having its own set of established patterns of behaviour, its purpose and its group members. In order to explicate the relationships of these aspects of traditional medicine practice, the discussion shall take us into these areas; the training of traditional medical practitioners (the medicine men), the routine practice at the medical shrine, the diagnostic and therapeutic aspects, and the effects of contemporary social changes on the practice of traditional medicine. In the institution, the new entrant is taken to the cemetery for a ritual bath in order to get into contact with the Samanfo, the spirits of his ancestors. This is a complex supernatural organization centered around ancestor worship, in which the institution is a part. The essential fact is that inanimate objects-fetishes, shrines etc., become invested with magico-religious powers. These ancillary objects play a great part in the everyday life of the traditional society. Folk medicine tradition plays a key role. There is a vast body of beliefs held by non-medical science trained professions concerning the cause of illness and the ways of treating it. Backed by the weight of experience of the older generation, citing empirical evidence from specific cases and from nature, folk medicine has more of an emotional flavor than a scientific inclination. Beliefs are held and remedies accepted not on the basis of experimental evidence but on the authority of respected members of the community who have had the experience.

The point however is that whenever the patient does not get the appropriate cure from scientific medical institutions, he may drift "down-wards" to see a folk medical practitioner.

- Kaushik Chattopadhyay (2020), in his writing **"Globalization of Ayurveda: Importance of Scientific Evidence Base".** He has described that ayurvedic interventions are found to be clinically and cost effective. The clinical, personal and economic burden of diseases on people and their families/carers will be prevented or reduced. They will be provided with more evidence-based choices to prevent and manage diseases. These interventions may simultaneously empower people to manage their health. These interventions may reduce health inequalities and be beneficial to all of the society. Health policymakers and managers will benefit from the availability of low-cost and acceptable evidence-based solutions to prevent and manage diseases, since more expensive disease prevention and management models are in use. The economic burden of diseases on the health systems and the economies will be prevented or reduced.

- Subramani Parasuraman and Pandurangan Perumal (2020) in their writing **"Siddha, an Indigenous Medical System of Peninsular India"**. They revealed that Siddha medicine is a one of the oldest traditional medicinal system commonly used by Tamil people. The Siddha system of medicine mainly concentrates on the whole person's healing rather than treating symptoms of illnesses. This system of medicine is documented in Tamil, a language predominantly spoken by the Tamil people of India and Sri Lanka. The available document should be made available in multiple languages to reach the global platform. Currently many pharmaceutical and analytical methods are available to standardize the herbal medicine, which can be extended to Siddha medical system to increase the global acceptance rate.

- Ambarish Mukherjee and Mousumi Banerjee (2020) in their writing **"Rejuvenation of Interests in Herbal Remedies as Elixir of Life"** where They described that the ethnomedicine, an age-old therapeutic system which is traditionally practised among folk- and different tribal communities, has always been in India the matrix of codified traditional systems as Ayurveda, Unani,

Siddha, etc. that are mostly based on plants and emanate conceptually from folk- or ethnomedicine have texts and literature of classical antiquity wherein are documented their unique principles, theory, pharmacy, and pharmacology.

- Raja Chakraborty, Saikat Sen, NongmaithemRandhoni Chanu, AkoijamBishaljit Singh, and Pratap Kalita (2020) in their writing "**An Ethnobotanical Survey of Medicinal Plants Used by Ethnic People of Thoubal and Kakching District, Manipur, India"**. They have enlightened us with the medicinal plants that are available in the area of the local tribal healers used them as a medicine for their common ailments since ancient time. A number of phytochemical moieties like anthocyanins, alkaloids, glycosides, flavonoids, tannin, saponins, carbohydrates etc. present in such plant species may responsible for their curative effect.

- Atanu Bhattacharjee, Raja Chakraborty and Saikat Sen (2020) in their writing **"Scientific Basis for Ayurvedic Medicinal Plants Against Alzheimer's Disease",** They compared that Ayurveda, the Indian system of medicine had developed certain dietary and therapeutic measures to delay ageing and rejuvenating the whole functional dynamics of the body organs. This revitalization and rejuvenation are known as the 'Rasayanachikitsa'. There are considerable financial, social, and emotional burdens associated with the caring for patients with this disease. In fact, in advanced robotic life style, where life expectancy is long, this disease is a major cause of morbidity and it imposes severe strains on the social welfare systems. It is estimated that in the USA alone, more than five million people are affected by and whereas in Indian scenario the disease has already emerged as one of the deadliest progressive threat to mankind after diabetes, cancer, and cardiac disease.

- Vandana Roy (2020) in her writing **"Integrating Indigenous Systems of Medicines in the Healthcare System in India: Need and Way Forward". S**he emphasized that traditional medicine has been defined as the sum total of the knowledge, skill and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or

treatment of physical and mental illness. Traditional medicines of proven quality, safety and efficacy contribute to the goal of ensuring that all people have access to care.

- Pawan K. Kaushik and Poulami Saha (2020) in their writing**"Herbal Home Herbal Garden for Promotion of Herbal Health Care System in Tripura".** They pointed out that herbal medicines have been widely utilized as effective remedies for the prevention and treatment of multiple health conditions for centuries by almost every known culture. It has been recorded that nowadays it is estimated that 80% of the population uses herbs as in daily basis of work in different purposes, the culture plays an important role in the manner in which people use herbs. Herbs can serve as a major way of treating certain conditions or diseases or even more cost effectively, especially if the herb can be grown locally or regionally. The reason for the use of herbal plants is that it is a part of the culture and belief of some people for the maintenance of health with its aromatic, medicinal, or cosmetic properties and for the increased use of herbals is the relatively cheaper cost of herbal products and hence affordability to the lower income group and that the practitioners can grow their economic prospects from the healing traditional practices.

- Tridip Bhattacharjee, Saikat Sen, Raja Chakraborty, Praveen Kumar Maurya and Arup Chattopadhyay (2020) in their writing**"Cultivation of Medicinal Plants: Special Reference to Important Medicinal Plants of India".** They observed that our lifestyle is becoming modernized as we are becoming more dependent on technology, adopting unhealthy lifestyle and moving away from nature. Herbs are important to maintain our health and discovered of new medicine. Traditionally, we are gifted by our ancestors with medicinal knowledge and nature since its existence provide a lot of herbs used for the ailments related to different seasons. Loss of biodiversity is a huge problem or unscientific collection of medicinal plants from wild sources will create a problem in the future related to the sustainable availability of plant sources. Cultivation outside their natural habitat will be useful for sustainable availability of medicinal plants, preservation of medicinal plants and promoting economic development.

- Harun Al Rashid, Anindita Kundu, Vivekananda Mandal, Phurpa Wangchuk, and Subhash C. Mandal (2020) in their writing **"Preclinical and Clinical Trials of Indian Medicinal Plants in Disease Control".** They reealed that the traditional herbal drugs have a vital responsibility to participate in primary health care as well as discover promising medicinal herb remedies and assist their development to clinical trial stages both as crude formulations or in isolated compound-based regimens. Traditional medicines play a significant role in modern drug discoveries.

- Maheshwari Kumari Singh and O. S. Bindhu (2020) in their writing**"Plant Latex: A Rich Source of Homeostatic Proteases".** They pointed out that among herbal medicines, latex and its constituents provide a major basis for wound care and management. Use of plant latex from several medicinal plants to stop bleeding from minor injuries, and to enhance wound healing has been in tribal/rural practice for thousands of years in India and other countries. Latex producing plants were reported to be the primary constituents of traditional medicine employed in the management of wounds and burns. Latex is a plant-derived natural milky fluid secreted by specialized laticifers. Local tribal communities and traditional healers have extensively explored the medicinal values associated with this plant exudates from various angio-spermic families for treating diverse ailments including various skin injuries (common wounds, cuts, burns, boils, blisters, bruises, thorn wounds, cracks, ulcers and warts).

- Vibha Rani, Anubhuti Gupta, Megha, Sakshi Awasthi, Tanya Suneja, Mohini Yadav and Shanya Verma (2020) in their writing **"Antidiabetic Activity of Indian Medicinal Plants".** They reflected that Plants are an intrinsic part of our lives and have been an important source of food, fodder, medicine and fuel since old times. Non-being non-toxic, having typically fewer side effects, better compatibility with physiological flora, and inexpensive prices are the reasons for the fondness for plant-based medicines. Ayurveda and the various Indian literatures describe the usefulness of plants in treating numerous human ailments. India is graced with a rich wealth of medicinal plants therefore making it the

botanical garden of the world and the largest producer. Diabetes mellitus is a metabolic, non-communicable diseases and the fourth largest killer in many developing and industrialized nations globally, posing a serious threat in the twenty-first century diagnosed.

- Rinku Baishya, Jyoti L. Hati Boruah, Manob J. Bordoloi, Deepak Kumar and Pratap Kalita (2020) in their writing**"Novel Drug Delivery System in Phytochemicals: Modern Era of Ancient Science".** They highlighted that herbal drugs have the potential to treat all diseases with one or more active constituents present in them and they have been extensively used throughout the world since ancient times. With fewer side effects when compared with modern medicines, it's well-recognized between physicians and patients. Plant actives and extracts are now also been recognized for high therapeutic value in the new dimension of novel drug delivery and targeting. This change has been brought by the rising demand of herbal drugs in the market and also with the growth of awareness among people about the safety of plant origin drugs.

- Mohammad Kamil (2020) in his writing**"Sassurealappa: A Scientific Review"**, where he observed that when the herb is taken in large doses it may produce irritation and a feeling of discomfort in the abdomen which may last for several hours; the patient at the same time feels somewhat drowsy. Large doses of the extract may: produce giddiness, headache, and drowsiness; also produce a harmful effect on urinary bladder and lung's function.

- Pratap Kalita, Prabin Kr. Roy, and Supriyo Sen (2020) contributed in **"Agarwood: Medicinal Side of the Fragrant Play".** They pointed out that the fragrant attribute of agarwood has chronically suppressed the medicinal importance of the plant in popular Perception as well as scientific research. However, there is a significant divide among the fragrant and medicinal use of the plant along the Western and Eastern hemispheres. While in West Asia and Europe the fragrance of agarwood and its use in aromatherapy are valued in East, particularly Southeast Asia and China, there is considerable traditional application of agarwood in medical conditions. The medicinal side of this fragrant plant is

therefore as much interesting as formation of agarwood resin itself by complex environmental actions and nature of the plant with regard to its medicinal use. The favourable toxicity results also offer enough validation for the successful traditional use of the plant in the treatment of diseases and symptoms. The future and can possibly generate new herbal therapies and drug formulations.

- Mitali Madhumita, Prashanta Guha and Ahindra Nag (2020) in their writing **"Processing and Potential Health Benefits of Betel Leaf (Piper betleL.)"**. They described that plant with heart shaped deep green leaves is an important horticultural, medicinal and recreational cash crop of aesthetic and commercial values. The leaf, the edible part of the plant, is the most valued medicinal, religious and ceremonial portion and consumed as a mouth freshener in its natural and raw condition. It has a strong pungent and peculiar taste and a strong aromatic clove-like flavor due to the presence of phenols and terpenes. In the past, to prevent halitosis, betel leaves were routinely used as a chewing agent by consumers and to obtain other health benefits. The leaves and leaf juice are also supposed to be useful in fever, indigestion, bronchitis, coughs, asthma, etc. and improve the vocalization, harden the gum, conserve the teeth and sweeten the breath. It is also used for the treatment of disorders of physiological function, endoparasites, skin diseases and even ENT (ear, nose and throat) diseases.

- Pulok K. Mukherjee, Subhadip Banerjee, Amit Kar and Joydeb Chanda (2020) in their writing **"Drugs from Our Ancestors: Tradition to Innovation".** They revealed that the history of medicine is ancient, the sum total of the knowledge, skills, and practices based on the theories, beliefs and experiences indigenous to different cultures used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illnesses. Traditional medicines are considered as the sum of the ethnomedicinal knowledge, skills, and indigenous practices in different cultures. There is an urgent need of ensuring effective quality, safety and efficacy of traditional medicine to direct natural product-inspired drug development research. A large number of people, suffering from cancer and rheumatic arthritis, use complementary and alternative medicine regularly.

- TochhawngLalhriatpuii (2020) in his writing **"HPTLC Fingerprint in Herbal Drug Formulations"**. He pointed out that the most widely used system of medicine in the world today and the earliest system of medicine is herbal medicine. It is medicine made exclusively from plant sources. It is widely used in all community and is common to all cultures and traditions. Herbal drugs are medicines made from plant sources. The term can refer to any of hundreds of the herbal remedies sold as dietary supplements and for therapeutic purposes.

- Rownak Jahan, Khoshnur Jannat, Jannatul Ferdoes Shoma, Md. Arif Khan, Hossain Uddin Shekhar and Mohammed Rahmatullah (2020) in their writing **"Drug Discovery and Herbal Drug Development: A Special Focus on the Anti-diarrheal Plants of Bangladesh"**. They described that herbal medicine, on the other hand, can be the crude extract of a plant or multiple plants or enriched fractions like tinctures, powders or pills. Herbal medicine is also often called traditional medicine because all traditional medicinal systems are essentially plant based. *The Traditional Medicine Division of the World Health Organization* recognizes that if a plant has been used traditionally as a medicine for centuries, the plant can be taken as a credible proof for its therapeutic efficacy for the disease that it has been used for and is still in use.

- Mohammad Shavez Khan and Iqbal Ahmad (2020) in their writing **"Diversity of Antimutagenic Phytocompounds from Indian Medicinal Plants".** They reflected that the majority of the Indian medicinal plants used in traditional system of medicine are considered as safe to treat a number of ailments. However, scientific evaluation on the mechanism of actions of bioactive compounds in herbal formulations and their therapeutic contribution is largely less understood. Considering the global recognition of herbal medicines in treatment of various ailments, traditionally used medicinal plants have been exploited for the search of novel antimutagenic compounds as well as to understand the mechanism of pharmacological action.

- Raja Chakraborty (2020) in his writing **"Folk Medicine of North East India and Drug Discovery: Way to Look Forward".** He pointed out that in this modern era still, the traditional knowledge plays an important role in their daily life health management, food, shelter, and rituals. The practice made them highly efficient to select plant parts and their mode of application. Since the inception of modern technology and science, traditional knowledge is guiding mankind in the discovery of new medicines. Nature bestowed its kindness on us by providing food, shelter, and other resources including medicine. It was observed that advancement of science and technology has helped us in the discovery of new medicine, but nature has provided us with the resources and traditional knowledge guiding us in this process.

- Lalduhsanga Pachuau and Rajat Subhra Dutta (2020) in his writing **"Wild Edible Fruits of Northeast India: Medicinal Values and Traditional Practices".** They have described the ethnomedicinal properties of various wild fruits from Northeast India. Only fruits that are documented to have been used in at least four different states are selected. Indigenous people living in the Northeast India depend on these wild fruits as their source of nutritional supplement and a cure in times of illness. Most of the wild fruits are utilized for gastro-intestinal problems such as diarrhoea, dysentery and constipation. The mineral and fiber contents of these fruits may be attributed to their medicinal and nutritional properties. Many of the fruits, in combination with other plant parts, have also been used in the treatment of diabetes and other chronic diseases. Moreover, these wild fruits are not only medicinal and nutritious, but many are rare and highly delicious. A proper chemical and pharmacological evaluation will help in getting recognition of their veritable values and help in their popularization. Systematic conservation policy will also make sure that these invaluable fruits see the future and survive the human onslaught on our environment.

- Jiwan S. Sidhu and Tasleem A. Zafar (2020) in their writing **"Fruits of Indian Subcontinent and Their Health Benefits".** They highlighted that in the Indian Himalayan region. There are natural resources that cure the incidences of various types of cancers such as breast, uterus, ovarian, and colon cancer. These diseases

have been associated with various risk factors such as hormones, high fat intake, and reactive oxygen species. Amla fruit is one of the best natural sources of vitamin C, and contains many health-promoting phytochemicals, which can provide protection against these diseases.

- Chandan Tamuly(2020) in his paper**"Study on Nutraceuticals of a Certain Ethnomedicinal Plants of Arunachal Pradesh, India".** He emphasized that the tribal communities draw their sustenance mainly from the forests which provide them food, plants and other material requirement. Their lives are much dependent on forest or natural plant wealth. The biological wealth is so intrinsically important to the lifestyle and systems of the indigenous communities that wild plants make an important contribution for the sustenance of local communities. The rich natural resource contributes a lot for nutrition, health and socio-economy upliftment of the tribal people. Traditionally they are getting good sources of protein, carbohydrate, vitamins, minerals, etc.

- Vivek V. Bhosale and Dibyendu Banerjee (2020) in their writing **"Scientific Validation of Herbal Medicine".** They described that herbal medicines also known as traditional medicines are either the mainstay of healthcare delivery in some countries or serve as a complement to it in some other countries. The opportune use of herbal medicine is supported by the World Health Organization (WHO)which also encourages the use of remedies which have been proven to be harmless and effective. The WHO definition for herbal medicine defines it to be an extract or preparation from one or more plants that have therapeutic as well as other human health benefits. In some traditional practices, herbal medicines also contain some materials of inorganic or animal origin (WHO 1993). Herbal medicines can be defined as natural products originating from plants or their parts with varying chemical composition depending upon several factors like chemotype, botanical species being used, and part of plant such as root, leaves, flowers, etc. being used. The extrinsic factors like storage conditions, sunlight, humid environment, type of soil, land, harvesting time, and geographic area also affect the quality of raw medicinal plant materials.

- S. Dutta (2001) "**Health and Economic Status of Santals".** He analyzed the health and economic status of the Santals in rural areas of Birbhum, Bankura, Burdwan, Midnapur and Purulia District in West Bengal. He pointed out that majority of the Santals under investigation were illiterate and living below the poverty line and suffering from various diseases like tuberculosis, malaria, leprosy etc. Health services in the areas were poor. Whatever health facilities available were underutilized due to illiteracy and ignorance and a section of the sample household mainly dependent on the local Kaviraj for treatment.

- J. Troisi (1978) in his writing "**Tribal Religion; Religious Beliefs and Practices among the Santals".** He observed that the Santal religion consists of wide range of religious beliefs and practices, beliefs in supernatural powers, deities, spirits etc. The Santals also strongly believe in magic and witchcraft and supernatural powers which they believe as causing various sickness and illness. Hence appropriate sacrifices are made and propitiated to appease the spirits for treatment of illness and diseases.

- V. Sujatha's (2003) **"Health by the People: Sociology of Medical Lore".** He conducted a fieldwork among a group of villagers in Persimmon Thevar in Thirumangan District of Tamil Nadu. In this field study, the author tried to explore and unfurl the village folk medical knowledge, folk medical conception and health practices among the villagers. The author observed that though the villagers primarily attributed the causes of diseases to 'body constitution', quality of food, body system and diet, yet they also have a strong belief in supernatural causes of diseases and hence treatment of illness are given by folk practitioners, who administer medicine prepared from herbs, roots, leaves etc.

- S.K. Basu (1993) **"Tribal Health in India"** in his paper the author carried out a comprehensive health related studies among different tribal groups, namely, Muria, Maria, Bhattra, Halka, of Bastar District in Madhya Pradesh, Juansaris of Juansar of Bewar in Dehradun District of Uttar Pradesh, Kutia Khonds of Phulbani, Santal of Mayurbhunjh, Dudh Kharia of Sundergarh in Orissa. He used some parameters like female literacy, age of marriage, marriage practices, fertility,

mortality, nutritional status of mothers, forest ecology, child bearing etc. His data analysis shows that mother-child malnutrition was a big problem of mother - child health resulting in high mortality.

- Guha (1986) in **"Folk Medicine of BoroKacharis; A Plain Tribes of Assam"** in B. Chaudhury (Ed.) Tribal Health: Socio-Cultural Dimensions: The author made a study on the folk medicine among the Boro-Kachris, a plain tribe of Assam. He stated that folk medicine is a common practice among all communities and relates further that causation and cure of diseases are associated with religion and morality. On the other hand, good health is a result of an honest and pious life while diseases and sufferings are the result of dishonesty, immorality and incest. So, the treatment of diseases is associated with religious rites. Boro-Kacharis have a strong faith in supernatural causes of diseases. Diagnosis of diseases follows divination and interrogation and treatment is sought accordingly, like prayers, propitiation, and sacrifices of animals to appease gods and to ward off evil spirits. Bang (1973) has presented some current concept regarding small pox, Sitala in West Bengal. People believe that goddess Sitala is inside the patient when disease sets in and hence every wish of the patient must be fulfilled to keep the goddess appeased. The introduction of vaccination was considered violation of indigenous treatment and it was opposed for the fear that the wrath of goddess may be stronger and disease may be further aggravated. Therefore, herbal treatment and worshiping was favored for treatment of small pox.

- S.P. Gupta's (1986) **"Tribal Concept of Health, Disease and Remedy"** in B. Chaudhury (Ed.) Tribal Health: Socio-Cultural Dimensions. The author analyzed the tribal concept of health, disease and their treatment and pointed out that these concepts vary from one culture to another. Tribal community follows its traditional customs with regard to health, disease and treatment. He found that supernatural causes of diseases and supernatural means of cure was a common practice.

- R.K. Kar and Gogoi's (1993) **"Health Culture and Tribal Life: A Case Study among the Noctes of Arunachal Pradesh",** studied the health culture of the

Noctes, major tribes of Arunachal Pradesh in the North East India. They pointed out that living condition of the people was responsible for most diseases and the tribes in supernatural causes of disease and treatment.

- N.K. Behura (1991) in **"Anthropology of Disease Treatment and Cure".** The author made a study on the Koyas of Orissa. The author emphasized that health and disease is related to biological and cultural resources of a community in a specific environment. In traditional societies these phenomena are rooted in social and cultural factors. The Koyas believe village in medicine men and that shamans possess a comprehensive knowledge about medicinal plants, herbs, wild fruits, leaves etc. So, they depend on a large extent on the indigenous medicine. Bagchi (1990) studied the health culture of the Munda tribe of Narayangarh, Midnapur District where he has highlighted the cultural factors influencing health status.

- H.H. Risley's (1892). **"The Tribes & Castes of Bengal",** the book is an ultimate ethnographic glossary. The author attempts to draw up an ethnographic description of various castes and tribes found among the seventy millions of people inhabiting the territory administered by the Lieutenant-Governor General of Bengal. It has been difficult for the author to secure complete information regarding all groups which have to be dealt with and on other to avoid making general statements concerning castes as a whole.

- Sachchidananda's (1986) **"Socio-Cultural Dimension of Tribal Health"** in *Journal of Social and Economic Studies* has highlighted social and cultural factors related to health of tribals which acted as impediments and that the health of tribals to a great extent was dependent on their social organization, culture and religion.

- A.R. Fonning (1987) **"Lepchas, My Vanishing Tribe",** in his book describes the Lepcha tribe, their culture, faith and belief in various malevolent as well as benevolent spirits. He discusses the institution of 'Mun' and 'Bongthings' which are ordained and have power to intercede and appease different 'mungs' or 'bongthings' and ward off unwanted malignant spirits by different religious rites, rituals and

ceremonies. The author describes innumerable spirits that are responsible for various illness and disease.

- D.N. Gelner (1994) in his paper **"Priests, Healers, Mediums and Witches: The Context of Possession in Kathmandu Valley",** observes that shaman is known as a 'Jhankri' in Nepali Language and that a shaman is usually a male who gives treatment to the patient and also performs priestly functions. The author in one of his studies observes that a large number of cases of diagnosis in some Kirtipur healers' practice and that a healer or a medium identifies a 'spoiling action' as an action of a witch. The author points out that witchcraft and sorcery is widely prevalent in the Nepalese Society.

- J. Hitchcock and R.L. Jones (1976) in their writing **"Spirit Possession in Nepal Himalayas".** They have discussed elaborately about the spirit possession and shamanism among the Nepalese community of Nepal. The Nepalese believe in a number of supernatural beings. The authors have given four-fold classification of spirit possession in the Nepal Himalayas such as Peripheral possession, Re-incarnate possession, Tutelary possession, and Dracular possession. The authors also discussed the concept of shamanism. A shaman is considered to be a specialist in healing, divination and allied social functions, allegedly by techniques of spirit possession and spirit control. A shaman is also a religious practitioner but primarily he is believed to be a healer of illness and disease.

- N.K. Kannuri (2009) in his paper **"Koya Perception of Health and Illness: An Ethnomedical Analysis",** in A.K. Dalal and Subha Roy (Ed.) book, Social Dimensions in India. The author made a study on the Koya tribe of Andhra Pradesh, where the author has examined the Koya' s perception of health, illness and cure, illness behavior and their health seeking behavior. The author's finding was that Koya's concept of health was defined on functional perspective and be able to perform roles ascribed to individuals in their regular activities. The author has classified diseases causing illness by natural or physical reasons which include illness caused by humoral imbalance, injuries and animal bites. Sorcery was also attributed to be the major factor of disease and illness besides commission and

omission of some certain activities that could cause illness to persons or entire village.

- A.K. Kapoor and G.K. Kshatriya (2009) in their paper "**Demographic Structure and Health Care Practices of Dhodia Tribal Population of district Valsad, Gujarat,** in A.K. Dalal and Subha Roy, 'Social Dimensions in India' (Ed.). Author has studied the health care practices of Dhodias of Valsad District of Gujrat in relation to demographic structure. The authors have observed that the Dhodias have their own traditional concept like supernatural, ancestor spirit etc.; traditional way of treatment like charm, animal sacrifice propitiation, worship; and their preferences remain with traditional healing practices.

- X. Graham (1988) in his writing **"Sociological aspect of Health, Disease and Remedy"** in B. Chaudhury, 'Tribal Health: Socio-Cultural Dimensions' (Ed.). The author analyzed sociological aspect of health and illness. He stated that an intimate relationship existed between biological and sociological responses during normal process of life cycles. He also envisions the possibility that social and cultural behaviour may be related to the status of health such as occupational behaviour, recreational pattern, dietary habits, and religious prescriptions. He discussed various sociological factors related to diseases.

- U.P. Singh (2008) in his paper **"Tribal Health in North-East India: A Study of Socio-Cultural Dimensions of Health Care Practices".** The autho made a sample survey of two stage of North-East Region, namely Karbi and Rabha Tribes in Assam and Khasi and Jaintiya tribal community in Meghalaya and analyzed socio-economic and cultural factors that influence health care system. His finding was that distance factors had hindered utilizing public health facilities. Despite the visit of Government run health centres, especially for vaccination, immunization and child delivery, they have a very strong faith in magic, deities, spirits etc. So, they follow both magico-religious as well as allopathic system of medicine. His observation was that wide spread poverty, illiteracy, malnutrition, absence of safe drinking water, insanitary living condition, poor maternal and child care services

and ineffective health and nutritional services were the major factors for poor health status among the tribals.

- Mridula Saha (2015) in her paper **"History of Indian Medicine: Based on the Vedic Literature: Satapatha Brahmana".** The author made an attempt to unearth the medical materials lying hidden in the Vedic rituals and literature. It is believed that Atharvaveda is regarded as the source of Ayurveda, as informative materials regarding Indian medicine can be traced back to Atharvaveda at large. The information on Indian medicine is encrypted in a scattered way in Vedic literature. This book highlights the Satapatha Brahmana which provides a lot of facts regarding the existing medical care of health prevalent in the formative period of history of the Ayurveda. Along with these, it provides us with an abundant data of diverse incidental interest associated with the main theme that is concerned with sacrifice as dominating cult.

- J.J. Roy Burman (2003) in his writing **"Tribal Medicine",** depicts the study he carried out in villages and towns of North-Eastern states like Sikkim and Gangtok. The writing depicts the extent of dependence on various medicinal practices that exists now and even examines on any substantial change since the past. In his study, he has found the link with the issue of ethnicity that plays a key role in the social dynamics in the north-eastern states of India. The author primarily has described the socio-cultural aspects of seven states of north-east India followed with a brief account of different medical practices and health status of tribal citizens dominating there.

- Ebele N. Anyaoku, Obianuja E. Nwafor-Orizu and Ebere A. Eneh (2015) in their paper, **"Roles of Medical Libraries in Nigeria in the Collection and Preservation of Traditional Medical Knowledge (TMK)",** recommended that as a duty to individual's collective indigenous knowledge and heritage, the medical libraries in Nigeria as a priority should develop inclusive policies supporting collection and development of TMK information resources. They also reflected that reduced libraries help to preserve knowledge and increase safe use of traditional medicine products. Traditional medicine in Nigeria covers a wide

spectrum of indigenous medical practices including use of medicinal plants, traditional birth attendants and bone setting.

- Ekka Mary Kusum, Tiwari Priti and Prasad Harishankar (2016) in their writing, **"Traditional use of Medicinal Plants Practiced by the Oraon tribe of Jashpur District",** explored the use of medicinal plants for various diseases. They reflected that the use of plants for management and treatment of diseases has been in practice since ages and have documented on ethno-medicinal information on how important plant species are used by the Oraon tribe of Jashpur district to cure diseases.

- Habibur Rahaman Chowdhury and Suman Karmakar (2015) in their writing **"Ethnomedicine of Santal tribe living around Susunia hill of Bankura district, West Bengal, India: The quantitative approach"** in the *Journal of Medical Plants Studies*. They focused on Santal medicine from West Bengal and the traditional knowledge of herbal medicine practised among the Santal community of the villages surrounding the Susunia hill. The hill is very rich in its plant resources including medicinal plants. Ethnomedicine has been playing a very important role in human health care since time immemorial. This practice of health care is based on belief and experience of the ethnic people, which is a part of their tradition and culture. There has been an increased demand of herbal drug in international trade because herbal medicines are cheap, more effective, easily available and supposed to have no side effects.

- Subhra Basak, Arpita Banerjeeand ChanehalKumar Manna (2016) in his paper **"Role of some ethno-medicines used by the Santal tribal people, of the district Bankura, W.B., India, for abortifacient purposes"** in the *Journal of Medical plants Studies.* They observed that the Santal Tribal community, have a good knowledge about the medicinal uses of the plants for various purposes.Traditional knowledge of Santal Tribal People of the district Bankura, W.B. India has an immense importance in the control of fertility as well as an anti-implantation activity. Although modern medicines are widespread, but traditional tribal

medicines still exist in many developing and developed countries across the world. The main ingredients of the tribal medicine are derived from various plant sources. The tribes have developed their own system. Now-a-days tribal medicines are making a dramatic comeback and scientists are taking the natural products, analyzing them and trying to apply for curing people from severe dreaded diseases like cancer, AIDS, hepatitis, rheumatoid arthritis and neuronal diseases.

- Pushpesh Pandey (2016) highlighted inhis writing **"RAJI: A Tribe of Uttarakhand Approach to tribal welfare"** in *The Indian Journal of Political Science,*where he looked forest dwelling tribal people and forests are inseparable. One cannot survive without the other. The conservation of ecological resources by forest dwelling tribal communities have been referred to in ancient manuscripts and scriptures. The colonial rule somehow ignored this reality for greater economic gains and probably for good reasons prevalent at that time. After independence, in our enthusiasm to protect natural resources, we continued with colonial legislation and adopted more internationally accepted notions of conservation rather than learning from the country's rich traditions where conservation is embedded in the ethos of tribal life.

- Jyotsna Sharma, Sumeet Gairola, R. D. Gour R. M. Paninuli and T. O. Siddiqi (2012) in **"Ethnomedicinal plants used for treating epilepsy by indigenous communities of sub-Himalayan region of Uttarakhand, India"** in the *Journal of Ethnopharmacology*. They described that India is rich in ethnic diversity and has a well-practiced knowledge of herbal medicines. The Sub-Himalayan region of Uttarakhand is very rich in biodiversity and is a home to some of the important indigenous communities of the region. These communities are totally dependent on the natural resources for their diverse daily needs and have invaluable knowledge about medicinal uses of plants growing in their vicinity.

- D.R.Chhetri, P. Parajuli, G.C. Subba (2005) in their paper, **"Antidiabetic plants used by Sikkim and Darjeeling Himalayan tribes, India"** in the*Journal of Ethnopharmacology,*where they focused on Sikkim and Darjeeling Himalayan region is characterized by a rich floral diversity & an equally rich ethnomedicinal

tradition. Herbal medicine is the dominant system of medicine practised by the local tribes of this region for the treatment of diabetes. During the course of the present study, it was found that 37 species of plants belonging to 28 families are used as antidiabetic agents in the folk medicinal practices in the region and 81% of these plants are hitherto unreported as hypoglycemic agents. This finding may lead to serious research towards developing new and efficient drugs for diabetes.

- Abhijit Dey and Dr. Jitendra Nath De (2012) in their writing **"Traditional use of medicinal plants as febrifuge by the tribals of Purulia district,West Bengal, India"** in the *Journal of Asian Pacific journal Tropical Disease*. They observed that for the last few decades, plants have served as an important source of several novel biomolecules with medicinal potentials. In several instances, safety and efficacy of herbal medicines have been investigated and the World Health Organization (WHO) has estimated more than 4000 million herbal medicines. Ethnobotanical excursions were carried out among the tribals of Purulia district, West Bengal, India to explore the traditional use of medicinal plants against fever. Purulia with its typical topography, climate and location, is known to house a number of tribal communities with diverse socio-cultural backgrounds.

- Mohammad Fahim Kadir, Muhammad Shahdaat Bin Sayeed, Tahiatul Shams, M. M. K. Mia in **"Ethnobotanical survey of medicinal plants used by Bangladeshi traditional health practitioners in the management of diabetes mellitus"** in the *Journal of Ethnopharmacology*. They observed the that rural people of developing countries get benefit from the herbal medicine. Ethnomedicinal survey is one of the reliable sources of natural and synthetic drugs. Most people in Bangladesh, especially the tribal communities, rely on traditional medicinal healers for treatment of their ailments. The knowledge of medicinal plants' usage is very often passed on from one generation to the next only verbally and most of this knowledge has not been documented.

- B.Kumara, M. Vijayakumar, R. Govindarajan and P. Pushpangadan in their paper **"Ethnopharmacological approaches to wound healing—Exploring medicinal plants of India"** in the *Journal of Ethnopharmacology.* They observed that India

has a rich tradition of plant-based knowledge of healthcare. A large number of plants/plant extracts/decoctions or pastes are equally used by tribals due to folklore traditions in India for the treatment of cuts, wounds, and burns. The ethnobotanical knowledge is a base for treatment of cuts and wounds which includes a usage of plants, in methods employed by tribal and folklore practices prevailing in India. The concept of evolving drugs from plants used in indigenous medical system is much older, while in some cases direct links between a local and biomedical use exists, in other cases the relationship is much more complex.Wounds, particularly chronic wounds are major concerns for the patient and clinician alike; chronic wounds affect a large number of patients and seriously reduce their quality of life. Ayurveda, the Indian traditional system of medicine, is based on empirical knowledge of the observations and the experience over millennia. More than 1200 diseases are mentioned in different classical Ayurvedic texts.

- Abhijit Dey and Jitendra Nath De wrote**"Ethnobotanical survey of Purulia district, West Bengal, India for medicinal plants used against gastrointestinal disorders"** in the *Journal of Ethnopharmacology*. They conducted an ethnobotanical survey in the remote hills, forests and rural areas of Purulia, one of the tribal rich districts of the West Bengal state of eastern India. Purulia is a part of the biogeographic zone Deccan Peninsula Chhotonagpur. The authors have reported the use of medicinal plants amongnine tribes of the district against various gastrointestinal disorders. Bhumjis, Birhor, Gond, Ho, Kharia, Mal Pahariya, Mundas, Oraon and Santali represent the various aboriginal groups present in the district. Age, gender, literacy and profession of the aboriginals were found to be the significant factors when the traditional knowledge of medicinal botanicals was concerned. Medical herbalism has been popularized because of its fewer side effects and reported efficacy against a number of diseases. Indigenous use of botanicals plays a crucial role in human and livestock healthcare in a wider part of the world especially in the underdeveloped and developing countries.

- Arijit Sinhababu and Arpita Banerjee (2013) in their writing **"Ethno-botanical Study of Medicinal Plants Used by Tribals of Bankura Districts, West Bengal, India"** in the *Journal of Medicinal Plants Studies*. According to them Ethno-

medicine means the medical practices for the treatment of ethnic or aborigine people for their health care needs. Indigenous traditional knowledge is an integral part of the culture and history of a local community. This knowledge has been transmitted orally from generation to generation; However, it seems that it is vanishing from the modern society since younger people are not interested to carry on this tradition. It is also observed that some traditional plants in that area are fast eroding. The conservation efforts are needed by plantation and protection of these plants with the maximum participation of local people.

- U. K. Sharma, Shyamanta Pegu, Diganta Hazarika and Arpana Das (2012) in their writing **"Medico-religious plants used by the Hajong community of Assam, India"** in the *Journal of Ethnopharmacology*. They described that all ancient cultures and civilizations developed and fostered their own therapeutic systems, making use of the locally available bio resources and inorganic materials through empirical observations and inference. The ancient people also attempted to provide rational explanations and interpretations to the prophylactic and curative properties of the drugs employed by them. Religious plants concerved as a part of nature worship and generally believed to have begun in the initial stage of the human society. Plant worship or to regard plants as abodes of deities as a part of traditional culture implies not only a profound connotation ecologically but also a rich philosophical thought about the interrelationship between human beings and plants.

- Dr. V. G. Rao (2014) in his journal entitled **"Tribal health bulletin"**. He discussed the concept of tribe differs from one scholar to another. Today the range of groups referred to as tribe is truly enormous. Tribes are the people with special attachments to land, kinship ties, unique culture, and religious beliefs and materials possessions that differentiate and separate them from the mainstream. In general, the level of socio-economic development a poor quality of life, and cultural practices make tribals vulnerable to various diseases particularly communicable diseases and genetic disorders.

- Balayogan Sivasankari, Subburaj Pitchaimani, Marimuthu Anandharaj (2013) in their writing: **"A study on traditional medicinal plants of Uthapuram, Madurai District, Tamil Nadu, South India"**in the*Asian Pacific Journal of Tropical Biomedicine.* They observed that biodiversity brings enormous benefits to mankind from direct harvesting of plants and animals for food, medicine, fuel construction material, and other purposes. People have been using medicinal plants from time immemorial for the traditional treatment of various types of diseases. The use of traditional medicinal plants in India is about 4000 years old. The villagers used various medicinal plants to remediate variety of diseases and ailments like diarrhoea, diabetes, asthma, fever, jaundice, rheumatism, wounds, cuts, stomach pain, cough, cold, poisonous bites, body heat, body pain, bowl complaint, bronchitis, dysentery, earache, eczema, eye troubles, hair growth, intestinal worms, jaundice, leprosy, menstrual trouble, piles, pimples, ulcer, tooth-ache, urinary troubles, vomit, etc.

- S.B. Kosalge and R.A. Fursule(2009) in their writing **"Investigation of Ethnomedicinal Claims of some Plants used by Tribals of Satpuda Hills in India"** in the *Journal of Ethnopharmacology.* They focused on India has as a rich assortment of medicinal plants distributed in different geographical and ecological conditions widespread in the country. Plants have been used since prehistoric times for treatment of various ailments. The traditional systems of medicine together with folklore systems continue to serve a large portion of inhabitants, particularly in rural and tribal area regardless of the dawn of modern medicine.Pawaras are descendants of Rajputs as their ancestors migrated to this region about 400 years ago from Rajasthan state. Some distinctive medicinal plants utilized by Pawara tribal in the Satpuda hills cure diseases like skin disorders, burn, diarrhoea, jaundice, mouth ulcer, fever, joint pain, abdominal pain, migraine, menstrual problems, urinary problems, wounds, dog bite, as anthelmintic and abortifacient.

- S. Khaleel Basha, G. Sudarsanam (2012) contributed in **"Traditional Use of Plants against Snakebite in Sugali tribes of Yerramalais of Kurnool district, Andhra Pradesh, India"** in the *Asian Pacific Journal of Tropical Biomedicine.*

They reflected that in Yerramalais forest by Sugali tribes medicinal plants are used in the treatment of Snake Bite. Medicinal plants have been used for centuries as remedies for poisonous bites because they contain the component of therapeutic values. Traditional healing system plays an important role in maintaining the physical and psychological well-being of the vast majority of tribal people in India. Traditional medicine includes all kinds of folk medicine, unconventional medicine and indeed any kind of therapeutic method that has been handed down by the tradition of a community or ethnic group. Snake-bite is an important and serious medicolegal problem in many parts of the world, especially in South Asian countries.

- Vinayak Upadhya, Harsha V. Hegde, Shripad Bhat, Pramod J. Hurkadale, S.D. Kholkute, G. R. Hegde (2012) in their writing **"Ethnomedicinal plants used to treat bone fracture from North-Central Western Ghats of India North Central Western Ghats in India"**in the *Journal of Ethnopharmacology*. They reflected that this place has a rich bio-cultural diversity and is also a home to varied ethnomedicinal practices. The traditional system of medicine, especially the herbal medicine, in India is directly linked to its rich floral diversity. The Western Ghats of India is one such high bio-cultural diversity region, which is one of the global biodiversity hot-spots. Several attempts have been made to document the vast ethno-botanical information from the region in the form of general documentation which have attempted to study and understand medicinal plants used in treatment of bone fracture, the traditional knowledge regarding the practice and use of plants in treatment of bone fracture and the importance of traditional herbal practices in community for their health needs.

- Ramar Perumal Samya, Ponnampalam Gopala krishnakon, Peter Houghton, Savarimuthu Ignacimuthu (2006) in their writing **"Purification of antibacterial agents from *Tragiainvolucrata*–A popular tribal medicine for wound healing"** in the *Journal of Ethnopharmacology*. They described that : Bacterial infection is one of the most serious global health issues in 21st century. Antimicrobial resistance settings have failed to address this essential aspect of drug usage. Natural products have been used for thousands of years in folk medicine and

recommended for a wide range of ailments. *Tragiainvolucrata* has been widely used in traditional systems of medicine for a variety of diseases.

- D. P. Lingaraju, M. S. Sudarshan and N. Rajashekar (2013) contributed in **"Ethno- pharmacological survey of traditional medicinal plants in tribal areas of Kodagu district, Karnataka, India"**. The Indian region with a vast heritage of diverse ethnic groups and rich biodiversity is a great emporium and treasure house of ethnobotanical wealth. Each and every tribal/ethnic community has its own system of traditional medicine and they utilize natural resource around their habitats for various medicinal purposes. In India, a large section of the rural populations living far away from urban area still rely on traditional herbal medicine for their primary health care needs. This is because, medicinal plants are easily available natural products and cost effective.

- S. S. Katewa, B. L. Chaudhary, Anita Jain (2004) in their paper **"Folk herbal medicines from tribal area of Rajasthan, India"** in the *Journal of Ethno-pharmacology.* They focused on floristic survey of ethnomedicinal plants occurring in the tribal area of Rajasthan that was conducted to assess the potentiality of plant resources for modern treatments. The information on medicinal uses of plants is based on the exhaustive interviews with local physicians practising indigenous system of medicine, village headmen, priests and tribal folks. The Aravalli hills of Mewar region of Rajasthan are inhabited by many tribes; Bhil, Garasia, Damor and Kathodia being the main ones. A categorical list of plant species along with their plant parts used and the mode of administration reported to be for effective control in different ailments is prepared. Folk medicines, mainly based on plants, enjoy a respectable position today, especially in the developing countries, where modern health service is limited. Safe, effective and inexpensive indigenous remedies are gaining popularity among the people of both urban and rural areas, especially in India and China.

- K.N. Singh, Brij Lal (2008) in their writing **"Ethnomedicines used against four common ailments by the tribal communities of Lahaul-Spiti in western Himalaya"** in the *Journal of Ethnopharmacology*. They looked on the new or

lesser-known medicinal uses of plant bioresource along with validation of traditional knowledge that is widely used by the tribal communities to cure four common ailments in Lahaul-Spiti region of western Himalaya. The study area inhabited by *Lahaulas* and *Bodhs* (also called as *Bhotias*), is situated in the cold arid zone of the state of Himachal Pradesh, India. During the ethno-botanical explorations (2002–2006), observations on the most common ailments like rheumatism, stomach problems, liver and sexual disorders among the natives of Lahaul-Spiti were recorded. Due to strong belief in traditional system of medicine, people still prefer to use herbal medicines prescribed by local healers. Prior to the development of modern medicine, the traditional systems of medicine that have evolved over the centuries within various communities, are still maintained as a great traditional knowledge base in herbal medicines.

- Mohammad Fahim Kadir, Muhammad Shahdaat Bin Sayeed M. M. K. Mia (2012) wrote **"Ethnopharmacological survey of medicinal plants used by indigenous and tribal people in Rangamati, Bangladesh"** in the journal of *Ethnopharmacology*. They observed that there is a very limited information regarding plants used by traditional healers in Rangamati, Bangladesh, for treating general ailments. Bangladesh has been gifted with a rich plant diversity base because of its heterogeneous ecologic condition such as fertile alluvial land, warm and humid climate. There are about 6000 species of indigenous and naturalized plants growing in the country. Rangamati is one of the richest areas in terms of flora in Bangladesh Tribal communities living here largely rely on traditional medicinal healers for treatment of their ailments: one reason is reliability to the treatment and another reason is lack of access modern medicinal facilities.

- Arshad Mehmood Abbasi, Mir Ajab Khan, Nadeem Khan, Munir H. Shah(2013) in their writing **"Ethnobotanical survey of medicinally important wild edible fruits species used by tribal communities of Lesser Himalayas-Pakistan"** in the Journal of *Ethnopharmacology*. They discussed that about that ethnomedicinal uses and cultural importance of wild edible fruits species by the inhabitants of Lesser Himalayas-Pakistan. Plants are being used by man for the betterment of his

life from the very first day of his emergence on the earth. Ethnobotany deals with traditional uses of plants by the ancient and indigenous people such as food, shelter, medicine, clothing, hunting and in spiritual ceremonies. The study of the cultural uses of plant species is significant to contemporary medicine, farming and even the manufacturing industrial sectors of a society.

- Subha Sri B, Sarojini N, Renu Khanna (2012) contributed**"An investigation of maternal deaths following public protests in a tribal district of Madhya Pradesh, central India"**in the journal of *Reproductive Health Matters*, where they observed the Government of India has initiated several interventions to address the issue of maternal mortality, including efforts to improve maternity services and train community health workers, and to give cash incentives to poor women if they deliver in a health facility. Every year, some 80,000 women die due to pregnancy related complications in India, the largest number of maternal deaths in any one country, with an estimated maternal mortality. This is due to the availability of and access to quality health care by people, especially for those residing in rural areas, the poor, women and children. Investments were made in the provision of community health workers called Accredited Social Health Activists (ASHAs) in every hamlet, development of infrastructure of facilities, capacity building for health workers, and the development of standards for public health facilities.

- Gisella S. Cruz-Garcia, Patricia L. Howard (2013) in their writing **"I used to be ashamed'**. They influence of an educational program on tribal and non-tribal children's knowledge and valuation of wild food plantsin the article in *PressLearning and Individual Differences,* where they focused on tribal groups and rural non-tribal people from Way and a global biodiversity hotspot located in the Western Ghats of India, depend on wild food gathered from forests and agricultural landscapes for their subsistence. These plants are especially important to tribal communities. Existing on a management continuum from truly wild to cultivated, wild food plants are essential sources of nutrients and provide seasonal dietary diversity for many communities across the globe. The knowledge of wild food plants and their consumption is declining in Way and due to on-going

modernization processes that are leading to decreasing availability of the resources and changing consumption values. There is a growing social stigma in the region around about wild food consumption as such species come to be seen as symbols of ‘tribalness’ or poverty.

- K Jeyaprakash, M Ayyanar, K N Geetha, and T Sekar (2011)in their writing **"Traditional uses of medicinal plants among the tribal people in Theni District (Western Ghats), Southern India"**, in the *Asian Pacific Journal of Tropical Biomedicine.* They described that the knowledgeable Paliyarand Muthuvar traditional healers in Theni District of Tamil Nadu, Southern India explore their indigenous ethnomedicinal knowledge. The use of plants among the paliyars and Muthuvars reflects their interest in ethno-medicine and further investigation on these species may lead to the discovery of novel bioactive molecules.

- Pinak Tarafdar (2008) in his famous writing **"Right to Health: The Tribal Situation"** in the journal of *Indian Council of Social Science Research*. He defined health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. In fact, the issue of health is not only the exclusive domain of human physiology, the right to health can only be recognized whenever the tripolar concept of the same (Physical, Social and Mental health) is achieved by a person or a community or a tribe. When one is concerned with the concept of health among the tribal people in India, it is perhaps as well appropriate to be clear about what is generally meant by 'health'. In the context of Indian socio-economic constraints, it may be then realistic to handle the concept of health in a bi-polar nexus, as disease and infirmity have been sometimes distinguished from unspecified "illness". In the village Barashymnagar the old age of their reliable ojha was the main constraint. Deforestation or commercial afforestation was one of the causes for not getting proper treatment through the traditional healers. The major causes of rapid and excessive degradation of forest in the studied areas were illegal felling of trees by contractors and revenue earning attributed to the Forest Department. The forest had become inaccessible for the villagers and traditional healers.

- Frederick C. Colley (1978) who wrote **"Traditional Indian Medicine in Malaysia"** in the *Journal of the Malaysian Branch of the Royal Asiatic Society*. He focused on the modern Federation of Malaysia was inaugurated as a sovereign state in 1963. It consists of eleven states on the southern two-fifths of the Malay peninsula and two states on the island of Borneo. One hundred and fifty years ago Malaya was almost completely covered with swamp and jungle with only a few settlements along the coasts and rivers. Ayurveda is also remarkable for its theoretical basis. It is concerned with harmonizing secular and spiritual pursuits through a realization of the true relationship between the complex of body, mind, soul and the universe.

- S.N. Arseculeratne in his writing **"Traditional Medicine and 'Western' Medicine in Sri Lanka"** in the journal of *Social Scientist*. He discussed that traditional medicine which has been practiced in Sri Lanka for centuries, and is still being used, is mainly of Indian (Ayurveda, Sidda) and Arabic-Islamic (Unani) origin. It also has an indigenous component, Desiya Chikitsa, which is probably the oldest. Hence, use is made here of the comprehensive term 'Traditional Medicine', instead of the term 'Indigenous Medicine'. In the early decades of their rule in India, the British interested themselves in indigenous medicine, especially herbal therapeutics, as practised by local practitioners.

- Rolf P. A. Dauskardt (1990) in his writing **"The Changing Geography of Traditional Medicine: Urban Herbalism on the Witwatersrand, South Africa"** in the *Geo Journal, A New South Africa – A New South African Geography?* He focused on While medical geographers have generally ignored medical pluralism in developing countries, a small but significant geographical literature on traditional medicine has emerged. Traditional medicine and especially her balism continues to be a major health care option in both urban and rural South Africa, especially among the black population. To a large extent, the traditional healing roles outlined above constitute the past structure of traditional medicine in South Africa and the manner it is practised in some rural areas today. With the advance of colonialism and the penetration of western medicine, changes have

taken place in the status and structure of traditional medical systems. The penetration of western medicine resulted in a struggle for control over health.

- Sachchidananda (1986) in his paper, **"Socio-Cultural Dimension of Tribal Health"** in *Journal of Social and Economic Studies* has highlighted social and cultural factors related to health of tribals which acted as impediments. According to him the health of tribals to a great extent was dependent on their social organization, culture and religion.

- C. Sridevi (1989) in her paper, **"Modern Women, Tribal Medicine Change"** in *Journal of Man and Life.* She discussed about the modern women, tribal health care practices and social change among a nomadic tribe called Mundalavallu of Andhra Pradesh. Among this tribe both men and women healers play an important role in the society. A medicine man is conceived as specialist in preparing medicine and invoking the spirits, giving treatment to diseases caused by witchcraft or other evil spirits. She highlighted on the role of Lama's faith in supernatural causes of illness and supernatural method of treatment. Lamas act as priests as well as diviners. To the Lepchas, the Lama is more a doctor than a priest. The Lepchas of Dzongu (Sikkim) have to trek a very long distance to avail hospital facilities up to Mangan. They also travel long distances to avail traditional treatment from a village medicine man. The Lepchas of Dzongu have indigenous system of medicine, based on herbs, other natural substance as well as supernatural forms of treatment. A local quack called 'Bongthing' or 'Jhankri' is widely employed in giving treatment for disease and illness.

- S. Basu and N. Mitra (2001) in their paper **"Health Development of Tribal Communities for India: Need for Action Research",** in *Indian Journal of Social Development* have made a general study on the health problems of the tribal communities in India in their article "Health Development of Tribal Communities in India: Need for Action Research." They observed that the health culture of tribal community is closely linked with their health problems. They pointed out that the tribals have distinctive health problems, which are mainly governed by their habitat, difficult terrain and varying ecology. According to

them, among the primitive tribal community, insanitary condition, lack of personal hygiene, lack of health education and ignorance are the main factors responsible for ill health. Therefore, it is necessary for health functionaries to have proper knowledge about health culture of the tribes. They also pointed out that inadequate nature of health facilities, lack of respect of indigenous culture are mainly responsible for non-acceptance and distrust of the tribal people towards modem medicine. The poor health scenario is the result of widespread poverty, illiteracy, malnutrition, absence of safe drinking water, poor sanitary condition, poor maternal and child health and nutritional services.

- K. Mital (1979) in his writing **"Primitive Medicine Verses Modern Medicine among the** Santals, in the *Journal of Social Research* has analyzed the interaction between modem and primitive medicine among the Santals. It was generally observed that the Santals do not avail modem medical health practices. On the other hand, they are heavily inclined towards primitive medicine. The traditional medicine man is known as 'Ojha' who also acts as a spiritual leader. They also have strong faith in witches. Modern health practice was not common among them.

# THEORETICAL ORIENTATION

There are different sociological and social anthropological theories which studied ethno-medical practices of tribal communities. There is not just one single theorist and theory to discuss about tribals' medical indigenous medical practices, but there have been several theories in sociology and social anthropologists have studied indigenous medical practices of tribal communities. Here, the present researcher has mentioned some relevant theories to prove that this study is a sociological study.

**J.G. Frazer-** The Golden Bough by J.G. Frazer was first published in 1890 and re-printed in twelve volumes between 1907 and 1915. In 1922, it appeared in abridged edition. It is a classic study of ancient cult and folklore and refers to a wide range of anthropological research. In this book, Frazer, reconstructed the evolution of human

thought through successive stages of Magic, Science and Religion. According to Frazer, magic dominated social life and the magician believe in laws of nature. These were not real, but imaginary laws. The intelligent ones came to realise the fallacy and faced the trauma of disillusionment; in that state they imagined of spiritual powers which could control nature. This was for Frazer, the stage of religion. In due course of time, this stage proved to be an illusion, leading to final stage of science.

**Emile Durkheim-** Emile Durkheim in his study has stressed on the social role of the most simple form of religion known as totemism of Australian aborigines. The totem denotes common objects such as an animal, plant or a symbol representing something that is sacred. A tribal clan is organised around some totem. The totem is sacred but also a symbol of the society itself. Durkheim concluded that when people are worshipping religion, they are worshipping nothing more than their own society. Divinity is merely society transformed and symbolically conceived.

The following aspects have been noted in the work of **Max Weber:** Weber was concerned with the sociology of religion and not the religion of everyday life regarding political, administrative, economic and moral behaviour in different historical situations. He tried to understand and reduce to order. His study depicts that religion is based on cultural needs of man to human life and human development. Religion being a pervasive and universal institution is deeply rooted in human beings. It is not just a strict institution, but exerts tremendous influence upon all other institutions. Weber suggested that the protestant institution and its ethics have played an important role in development of their economy. His study promulgates that how a particular sect of religion can influence the economic behaviour of the followers. Weber's major concern was to emphasize to what extent religious conception of the world has influenced economic behaviour of various societies, mainly thewestern society. Weber highlights that the Calvinist sect of the protestant Christian religion has strongest influence on the development of Capitalism. The theory captures several significant socio-economic influences that distinguish the western from the eastern characteristics. He was less concerned with ethical doctrines as expounded by theologians than with these doctrines in their popular forms as they guide group behaviour.

Religion and society seem poles apart; religion concerns itself with aspects that are beyond ethics, whereas economy deals with the practical business of working, producing and consuming. According to Weber, ideas, beliefs, values and world views of human societies guide the way the members of human societies acted in the economic sphere. Religion prescribes guidelines of behaviour; it is in accordance with these guidelines the followers direct or orient their activities. These guidelines are incorporated in the body of religious ethics of each religious system. On one hand, Weber establishes a relation between religious ethics and economic behaviour on the other hand , he tries to validate his ideas on certain issues with the help of comparative studies of various world religions. He studies Confucianism in ancient China, Hinduism in ancient India and Judaism in ancient Palestine.

These religions do not have conducive ethics for flourishing capitalism. Judaism could have achieved development, but for historical reasons the population had to scatter throughout the world. Weber has a negative view for the scope of development of rational capitalism in India as founded in religious ethos upheld by the caste-based society. Ancient India was economically advanced and had made valuable contribution towards the development of science. Hinduism did not provide ethics for the development of capitalism. The dictums of ‘dharma’, ‘karma’, ‘punarjanam’ are major hindrances in the direction towards capitalist economy.

The following aspects have been noted in the work of **W. H. R. Rivers –** W.H.R. Rivers had revealed that the fundamental aim of primitive religion was to safeguard life, which was achieved by certain simple mechanical procedures based upon rational inference but often false premises. Primitive medicine sought to achieve the same end, and not unnaturally used the same means. Hence in the beginning religion and medicine were parts of the same discipline, of which magic was merely a special department Dr. Rivers suggestion that the association of medicine with magic and religion may have been due to a blending of different cultures, is really an expression of the view that dominated his thoughts between 1911 and 1918, but from which he was gradually becoming emancipated during the last four years of his life.

**Talcott Parson-** Talcott Parsons was one of the first few scholars to lay the foundation for a sociological critique of the medical model of illness. The following aspects have been noted in his work. In his analysis of health and illness health is the condition of having optimum ability to perform social roles and responsibilities. Contrarily, illness is a disorder in this capacity to carry out social responsibilities and obligations and performances. Thus, a physically or mentally ill individual who fails to perform her/his social roles is said instead to adopt the "sick role". But unlike others who deviate from 'social expectation', sick people are not held responsible for their role in social deviance. Rather they have a justified reason for failing to carry out their social roles but are expected to try to get well. According to Parsons (1951), medicine controls illness as a type of social deviance by monitoring it and by getting people back to health so that they can resume their social roles and responsibilities. "The patient is characterised as helpless, technically incompetent and emotionally involved, therefore, needing to put himself or herself into the hands of a professional who is technically expert, functionally specific and affectively neutral"

Society and culture play a great role in the domain of health. As stated above, diseases and their social distribution are also seen in relation to the social environment and are treated as the effects of social structure. "The pattern of health and disease of a community can be analysed only when it is placed in the context of its socio-cultural framework. It is this socio-cultural milieu which determines the nature of illness and the line of cure. Every community or society views health problems in the perspective of its distinct set of beliefs and practices, values and norms, cultures and traditions though it cannot be denied that the people's perception of health is also influenced to a great extent by the external forces. Health and society are intricately interlinked for, it is society that determines the nature, cure and causation of diseases and the state of health of its members. On the other hand, the state of health of the people also contribute to the state of society. Often, health is considered as a state or a capacity in which the individual functions normally. But this state of normalcy is dependent on a gamut of factors like culture, social values, politics, philosophy, history, patterns of social structure and stratification, individual's caste, class, ethnicity, income, occupation and education. The state of health also largely depends on the psychological well-being of

the person. The interaction between the human mind and body represents a critical factor in regard to health

It is suggested that health may be more a function of biological inheritance, environmental circumstances, and especially, personal life-style than it is of the availability and efficacy of medical care. The health status and its disparities among people are influenced by different attitudes determined by socio-psychological, cultural and other factors. The inclusive culture alone that structures the lives of a population has strong implications for the health status of the people. Illness and poverty are interrelated. Illness causes poverty by preventing people from holding down a steady job. On the other hand, poverty appears to cause ill-health. In fact, the poor disproportionately impose the burden of ill health in every country or society. Because of their unhealthy social and environmental living conditions, a low standard of living, less access to health care, run-down living quarters, deficient diet, exposure to infection, stress of financial worries, poor education and lack of consciousness the poor are more likely to become sick.

A lot of people are born unhealthy. But many of those born healthy also suffer from premature death or illness, simply because of an unhealthy environment, their own living patterns, perceptions, attitudes, beliefs and so forth. They have the following belief systems and perceptions about body and mind. God and soul decide their health, behaviour and lifestyles. People's daily routines of eating and sleeping, their consumption of alcohol and tobacco, the amount of physical exercise and work they do, lack in personal hygiene. Health occupies a prominent place in people’s hierarchy of values and is a vital aspect of human resource development. Hence, development of personal and social health is very essential for over-all development of the individual and society.

The tribals, particularly those living in backward areas, have not had necessary access to health and other development services. Some of the schemes have been implemented among the tribals either defectively or ineffectively. Besides, the tribals have their own reasons as to why they reluctantly receive or even do not receive benefits of the modern health care schemes and stick to their traditional or indigenous curative care systems.

Even those who are provided with the health care facilities have not been able to utilize such facilities properly due to various reasons. One such reason is that they have found themselves in a dilemma as it has been hard for them to strike a balance between traditional and modern systems of medicine. Thus, the reasons like hostile environment, poverty, ignorance and illiteracy of the tribals have led to a sad scene regarding their health. This has also been supplemented by their superstitions, dogmatic and spirit-oriented conception of health, illness, disease and death besides the lack of adequate health services among them.

The tribals constitute an important component of India's population. Since they have been exploited all through the ages, at present they are backward socially, politically, economically and in the field of human resources development, consisting of education and health. Living in isolation for long, the tribals have followed their traditional methods of treatment of sickness and diseases as mentioned above. The traditional or indigenous medical systems still persist and put an enduring influence on the health conditions and medical decisions in the interior areas of India. This depends on the values, beliefs and attitudes of a community having strong influences on its people's interpretations of diseases and the techniques of their treatment. This is also related to the limited capacity of the local health centres to meet the growing demands of the villagers for health care facilities. As a result, there is a vast majority of traditional practitioners in comparison to a tiny minority of medical personnel of the PHCs serving a large number of villagers.

**B. Malinowski-** B. Malinowski was a Polish anthropologist who celebrated the first book on ethnography. The method employed by Malinowski during his fieldwork on Trobriand Island became the foundation for observations (PO). Malinowski's PO method was acknowledged as being as crucial to founding of modern social anthropology in Britain and elsewhere. He is recognized as father of social anthropology. He felt the living experiences dehumanized the young islander and pleaded with Grove, another anthropologist to correct the misinformation. Watson's concern for his community reveals his innate desire to heal his community's epistemology from the wound created by Malinowski, so-called anthropologist. Malinowski claimed that in his book, which his methodology was different from those

of colonial administrators, missionaries or traders whose approaches and claims were full of bias and prejudged opinions. He describes the Trobri and Islanders as savages and uses the same colonial expression such as 'expedition' instead of fieldwork.

He maintains a colonial relationship with Islanders. Such a colonial attitude supporting his framework of practising ethnography is hardly considered to be free from some colonial prejudices and claims that are very restrictive and so his PO method should not be employed uncritically. Malinowski professes ethnographers to grasp the native's views. His descriptive monographs about the Trobriand Islanders were with less identification with the subject. Considering Malinowski's ethnographic method as a universal approach, we faced with the urgent task of decolonizing ethnographic approaches that took place as early as 1955. During the same period, Trouillot refers to ethnography as the constitution of anthropology and savage slots. Decolonizing ethnography means challenging a body of anthropological canos based on eurocentrism, androcentrism, casteism and same savage slots.

With the increase in globalization, resulting in fluidity of information following between Global South and Global North and also within the Global North and Global South, the idea of decolonizing the practice of ethnography within the fields of anthropology and sociology gained a new impetus. In many areas around the world and in various contexts, the challenge has been taken up in treating the enterprise of knowledge with respect and as a pursuit of diversity and co-existence. In a special issue, "Decolonizing ethnographies", Kaur and Klinkert call upon anthropologists across the Global South and Global North to make an effort to decolonize ethnographies on ontologies and epistemologies, to engage with researchers how to present ethnographic research and to what ends. The project of decolonizing ethnographies is an ongoing project; to avoid creating new binaries and the same project demands contextualizing especially in research involving historical marginalized communities in so-called Global South.

**George M. Foster -** Clements identified five major causes of diseases in the non-industrial world: sorcery, soul loss, breach of taboo, intrusion by disease object, an intrusion by spirit. Foster classified the ethno-medical systems into two universal categories of disease etiology-natural and unnatural causes. Natural illness explains

illness in impersonal systematic terms. Disease is thought to stem from natural forces or conditions such as cold, heat and possibly by an imbalance in basic body elements. Unnatural illness is caused by two major types of supernatural forces: (1) occult causes which are results of evil spirits or human agents using sorcery and (2) spiritual causes which are results of penalties incurred for sins, breaking taboos or punishments caused by God.

**Verrier Elwin-** Verrier Elwin was a self-made anthropologist and public intellectual-cum-reformer, an ethical grounded and committed institution builder and an iconoclast, translating voices of tribal communities to both academic and administrative discourses in post-independent India. Elwin never tried to represent tribal cultures in terms of religion and ritual- a reductionist viewpoint which was characteristic of many counterparts. His writings exhibited an uncommon interest in representing material culture of tribal life. These include detailed description of clothing, housing, utensils, agricultural tools, food materials, cuisine, hunting and fishing implements. Verrier Elwin made women's loves visible for first time in Indian anthropology by studying themes of clothing, food and sexuality. With focus on women and nature, Elwin also explored topics of crime, disease, art and all subjects of research in Indian anthropology.

The following aspects have been noted in the work of **S.C. Dube-** Dube has analysed the magical beliefs among the tribals as strong belief of tribals in invisible powers which help in controlling epidemic, making rain and curing an ailing person. The tribals in India are possessors of magic beliefs and are influenced by magical notions. The old-fashioned distinction between magic and religion can be rejected on the basis of magico-religious practices that the tribals are observing.

**Sarat Chandra Roy-** Sarat Chandra Roy was an eminent Indian anthropologist. He revealed that Oraon religion as a system of animism and Oraon magic as 'force of the nature of "mana"'- his second text was replete with information straight from the horse's mouth. This included personal interviews with Oraons, their observations and classifications and verbatim representation of mantras, legends and stories narrated during ceremonies and ritual performances. As Roy's emphasis on personal observation increased, legends and songs that were found only in appendix of earlier work became

integral. Roy hoped that his fieldwork in Oraon villages would help him to capture local nuances and Oraon specificities. Local cultural meanings were explained by expressing them in universalistic terms. There is intermingling of ‘native’ and alien words in his account as indigenous terms are translated into anthropological jargon. ‘Dains’ appear as witches, ‘sokhas’ as sorcerers, ‘bhuts’ as ghosts, ‘najargujar’ as the evil eye, ‘bhagats’ as white magicians and ‘matis’ as black magicians.

# RESEARCH GAP

Research gap is a very crucial part of any kind of research. Though each and every researcher should follow research ethics because without that research will not be completed successfully. Any researcher should cope a specific and definite area due to time constraint and other limitations. So, a researcher should mention which area should be covered and which area should be left out in his/her study as it is very important and related to research topic. In this study, the topic of research entitled, "Indigenous Medical Practices among Tribes: A Sociological Study in Bankura District of West Bengal", here more scope has been laid out but according to the specific research question and the objectives, the present researcher has carried out her research in just a limited area and chosen some populations as a sample unit. The tribals' medical practices are not very recent phenomenons, but also traditional and long-term cultural practices which have been transforming from generation to generation verbally and also they have no written document. Thus, though all aspects of their indigenous medical practices are not so easy and comprehensive, yet the present researcher has met with those areas which have some research concern only. In this study, there is more scope and different perspectives to develop a concrete knowledge and study on it, but due to constraint of time, the present research has followed some fundamental theories of eminent social anthropologists and sociologists which are related with the research topic. For instance, James G. Frazer, W.R. Rivers, Emile Durkheim, Max Weber, Talcott Parsons etc. for making it sociological and showing its theoretical connection. Due to some deceiving practices and modern fraudulent practices, the tribals are aware and also scared to interact with outsiders of their society. So, they don't share their practising process and some internal activities with outsiders. So, it is a major gap in this study. Considering the above stated issues, the present researcher tried to work on these areas related to the tribes especially the Santal tribe.

# CHAPTER – 3
# RESEARCH SETTING

# Research Setting / Area Profile

## Jungle Mahals

The system of Cornwallis introduced in 1793 ushered in a new era in the economic history of Bengal in late eighteenth century. Theset up of 1793 was introduced keeping in mind the conditions of lower Bengal and those in settled areas; but the set up was soon to penetrate deep in other distant areas inhabited by the tribal people whose structure, age old beliefs and notions, social and economic patterns were distinct from rest of the people of Bengal. The impact of the new set up introduced in 1798 on a predominately tribal area and study of tension it had produced among tribalswould be a fascinating enquiry. The impact had presented a profound challenge to the entire economic and social fabric of tribal people as a whole and it did not remain unanswered. The erstwhile area known as Jungle Mahalsor jungle santal. The major tribal group of people i.e. the Santalsinhabiting this area have been taken up for an enquiry into the impact of new set up since 1793.

The term Jungle Mahals was well known long before the English penetrated the area. The area was known as Jungle Mahalsat the time of Akbar when it formed a part of CircarGoalpar. At the time of MurshidQuli Khan, the area was transferred in 1722 to Chakla- Midnapur which was ceded to the East India Company in 1760. Between 1760-1805Jungle Mahals area was officially recognised as an administrative unit. Several jungle tracts in districts of Birbhum, Burdwan, Bankura, Midnapur and Purulia were known as Jungle Mahals. The administrative unit was dissolved in 1833 under Regulation XIII and the component parts were transferred to adjoining districts consequent upon the Bhumji Revolt in 1832. The estates of Senpahari, Shergah and Bishnupur were transferred to Burdwan and remaining estates of Dhalbhum which were detached from Midnapur came to form the district of Manbhum in 1833. After 1833,there was no such thing as district of Jungle Mahals as a separate administrative unit, a term retained to denote the area which formed the district of Jungle Mahals. The administration was not precise, inconvenience was caused by vagueness of the jurisdiction of area known as Jungle Mahals and the Jungle Terrai of Bhagalpur district had maintained no definite boundary all through the period.

The western jungle is an extent of the country about eight miles in breadth and sixty in length. On the east it is bounded by Midnapur, on the west by Singhbhum, on the north by Panchetandand on the south by Moyurbhanj. A very small land is cultivated in its whole extent and very disproportionate part of it is capable of cultivation. The soil is rocky; the country is mountaneous and overspread with thick forests which round it in many places utterly impassable. It had been annexed to the province of Midnapur but due its barrenness it was never greatly regarded by the Nawabs. The Government and zamindarsdid not pay their rent or tribute regularly. The districts of Birbhum and Bankura had a share of it,The word 'Bir' in Santali language means jungle and in the opinion of Hunter, the tract derived its name from the physical aspect of this area. Birbhum was ruled by Raja Muhammad Asad Al Zaman Khan Bahadur when the Dewani was granted to East India Company in 1765.

The zamindars of Jungle Mahals were armed with powers to maintain peace in their locality and stringent sale laws were not enforced arbitrarily for some time. A general amnesty for all political offenders was declared but some of the Chuars were hanged to give a lesson to the recalcitrant elements. The parganas comprising Jungle Mahals remained scattered in the districts of Bankura, Manbhum, Midnapur and Burdwan. The splitting up of the district was not done for any administrative convenience but to contain the rebellious elements in a homogenous administrative unit.

## Brief overview of Santals:

The Santals are one of the largest indigenous tribes in India. They exceed approx. 6.8% of nations total population according to 1991 census. They are spread over the eastern part of India in the states of Bihar, Jharkhand, Orissa, Chhattisgarh, West Bengal, Assam, Tripura and Meghalaya. The land of Santals is between river Damodar and river Kasai. The Santalswere originally Munda speaking people and took their name from the geographical area known as 'Saont' or Samantabhum where they settled after separation from their mother stock. The word 'Saont al' means the inhabitants of the region of Saont or Samantabhumi. Chhant in Bankura district is held to be the Saont or Samanta land of old days. During its historical evolution, the Santals migrated from their original homeland AhiriPipri towards Chai-Champa where they remained for several generations. At Chai-Champa they faced some trouble and they went to Jhalda which

was at that time under the possession of some Mundas. They were compelled to push on to Saont. The Santals are divided into twelve septs like Soren, Murmu, Mundi, Kisku, Besra, Hansda, Tudu, Baske, Hembrom etc. Each sept has a symbol of its own. The Santali society is patriarchal; the village organisation of their society has a great influence on their social, economic and religious life. The village headman is known as Manjhi. The general welfare of the community is looked after by Manjhi, the headman. The women hold a high position among the Santals; marriages are arranged by parents and love-marriages are uncommon.

## The Bankura District

The district of Bankura is located to Burdwan district and is separated from the district by river Damodar. Beside Bankura district are the Hugli district, districts of Midnapore and Purulia. Bankura is a triangular shaped area and its geographical area is 6,881.0 square kilometres. Bankura comprises 22 development blocks, Saltora, Mejhia, Borjora, Gangajalghati, Chhatna, Onda, Ranibandh, Simlapal, Bishnupur, Joypur, Indus etc. The tribal population of the district is 2.50 lakhs with the percentage of tribal population in total population being 11 percent. The Bankura district is fifth among all the districts of West Bengal; the proportion of total population is 6 percent. The Ranibandh block has constituted the apex of tribal concentration. Bankura district is in the Indian state of West Bengal. The Bankura district and adjoining areas forming a part of ancient Rarh, were inhabited from pre-historic times by Austroloid and Dravidian tribes who were subsequently assimilated with the people and culture of Indo-Aryans or Europeans who prevailed in northern India. Cultural traces of all these groups are visible in Bankura district. There were two primary groups. The Nishadas and Dasa-dasyus; amongst the sub-groups were Bagdi, Bauri, Jele, Hari, Dom and others. Around three-fourths of Santals living in West Bengal, live in Rarh region. Many of them were initially martial races and were great heroes at some point of history. It is not that they formed a majority in a district or region, but they were substantial in numbers and probably were comparatively more numerous as a proportion of the total population. Over the ages, these people have put a tremendous pressure on shaping the folk culture of region. The area was widely influenced by Jainism, Buddhism and Shaivite thinking prior to the conversion of BirHambir to Vaishnavism. There were traces of Vaishnavism in the early days, but since BirHambir's conversion it became the dominant influence in the region.

Bankura district comprises of three subdivisions:

- BankuraSadar
- Khatra
- Bishnupur

Bankura Sadar subdivision consists of Bankura municipality and eight community development blocks. Bankura I, Bankura II, Barjora, Chhatna, Gangajalghati, Mejia, Onda and Saltora.

Bishnupur subdivision consists of Bishnupur and Sonamukhi municipalities and six community development blocks: Indas, Joypur, Patrasagar, Kotulpur, Soanmukhi and Bankura.

Khatra subdivision consists of eight community development blocks: Indpur, Khatra, Hirbandh, Raipur, Sarenga, Ranibandh, Simlapal, Taldangra.

## Chhatna Community Block

Chhatna is a community development block (CD block) that forms an administrative division in the BankuraSadarsubdivision ofthe Bankuradistrict inthe Indian state of West Bengal. From around the 7th century AD till around the advent of British rule, for around a millennium, history of Bankura district is identical with the rise and fall of the Hindu Rajas of Bishnupur. The Bishnupur Rajas, who were at the summit of their fortunes towards the end of the 17th century, started declining in the first half of the 18th century. First, the Maharaja of Burdwan seized the Fatehpur Mahal, and then the Maratha invasions laid waste their country. Bishnupur was ceded to the British with the rest of Burdwan Chakla in 1760. In 1787, Bishnupur was united with Birbhum to form a separate administrative unit. In 1793 it was transferred to the Burdwan collectorate. In 1879, the district acquired its present shape with the thanas of Khatra and Raipur and the outpost of Simplapal being transferred from Manbhum, and the thanas of Sonamukhi, Kotulpur and Indas being retransferred from Burdwan. However, it was known for sometime as West Burdwan and in 1881 came to be known as Bankura district.

**Geographical Distribution:** Chhatna is a community development block (CD block) that forms an administrative division in the Bankura Sadar subdivision of the Bankura district in the Indian state of West Bengal.Chhatna CD block is located in the western part of the district. It belongs to the uneven lands/ hard ring rock area. The soil is laterite red and hard beds are covered with scrub jungle and sal wood.There are two moderately high hills – Biharinath (in Saltora CD block) and Susunia (in Chhatna CD block). While the former rises to a height of 448 metres (1,470 ft), the latter attains a height of 440 metres (1,440 ft).Chhatna CD block is bounded by Saltora and Gangajalghati CD blocks on the north, Bankura II and Bankura I CD blocks on the east, Indpur CD block on the south and Kashipur and Hura CD blocks, in Purulia district, on the west.Chhatna CD block has an area of 447.47 $km^2$. It has 1 panchayatsamity, 13 gram panchayats, 147 *gram sansads* (village councils), 288 mouzas, 277 inhabited villages and 1 census town. Chhatna police station serves this block. Headquarters of this CD block is at Chhatna.Grampanchayats of Chhatna block/ panchayatsamiti are: Arrah, Chhatna I, Chhatna II, Chinabari, Dhaban, Ghosegram, Jamtora, Jhunka, Jirrah, Metyala, Saldiha, Susunia and Teghari.

**Population:**According to the 2011 Census of India, Chhatna CD block had a total population of 195,038, of which 189,712 were rural and 5,326 were urban. There were 99,523 (51%) males and 95,515 (49%) females. Population in the age range of 0 to 6 years was 24,229. Scheduled Castes numbered 58,493 (29.99%) and Scheduled Tribes numbered 39,975 (20.50%).In the 2001 census, Chhatna community development block had a total population of 169,141 of which 85,562 were males and 83,579 were females. Decadal growth for the period 1991-2001 was 8.32% for Chhatna, against 13.79% in Bankuradistrict.Decadal growth in West Bengal was 17.84%. Villages in Chhatna CD block are (2011 census figures in brackets): Shaldiha (2,504), Teghori (1,663), Ghosergan (1,909), Metyala (501), Shushunia (1,018), Jhunka (1,721), Jirra (2085), Dhaban (1,543), Arra (2,127) and Chinabari (1,125).

**Literacy:**As per the 2011 census, literacy in Bankura district was 70.26%, up from 63.44 in 2001 and 52.00% in 1991. According to the 2011 census, the total number of literates in Chhatna CD block was 112,267 (65.73% of the population over 6 years) out of which males numbered 67,651 (77.63% of the male population over 6 years) and

females numbered 44,616 (53.33%) of the female population over 6 years). The gender disparity (the difference between female and male literacy rates) was 24.30%.

**Language:**According to the District Census Handbook 2011, Bankura, as of 2001, Bengali was the mother-tongue of 89.9% of the population, followed by Santali (8.1%), KurmaliThar (1.1%), Hindi (0.5%) and Telugu (0.1%). There is a tribal presence in many of the CD blocks of the district. Santali is spoken by around 10% of the population. Some people also speak Mundari.

According to the West Bengal Official Language Act 1961 and the West Bengal Official Language (Amendment Act) 2012, the Bengali language is to be used for official purposes in the whole of West Bengal. In addition to Bengali, the Nepali language is to be used for official purposes in the three hills subdivisions, namely Darjeeling, Kalimpong and Kurseong, in the district of Darjeeling, and Urdu is to be used for official purposes in district/subdivision/ block/ municipality where the population speaking Urdu exceeds 10% of the total population. The English language will continue to be used for official purposes as it was being used prior to the enactment of these laws. The West Bengal Official Language (Second Amendment) Bill, 2012, included Hindi, Santhali, Odiya and Punjabi as official languages if it is spoken by a population exceeding 10 per cent of the whole in a particular block or sub-division or a district. Subsequently, Kamtapuri, Rajbanshi and Kurmali were also included in the list of minority languages by the West Bengal Official Language (Second Amendment) Bill, 2018. However, as of 2020, there is no official / other reliable information about the areas covered.

**Religion:**In the 2011 census Hindus numbered 161,367 and formed 82.74% of the population in Chhatna CD block. Muslims numbered 5,006 and formed 2.57% of the population. Christians numbered 56 and formed 0.03% of the population. Others numbered 28,609 and formed 14.67% of the population. Others include Adivasi, Maran Buru, Santal, Saranath, Sari Dharma, Sarna, Alchchi, Bidin, Sant, Sevadharma, Seran, Saran, Sarin, Kheria and other religious communities.Religious festivals celebrated by the Santalson the basis of Bengali calendar are:

**Table showing religious festivals celebrated by Santals according to Bengali months**

| Festivals | Main Religious Practices | Bengali Month | English Month |
|---|---|---|---|
| Maha Mare | Worship of Goram and Maran Buru | Baishak | April-May |
| Asariya | Worship of Goram | Asar | June-July |
| Dasayanaj | Inter village festival devoted to their domestic animals, specifically the cow | Aswin | September-October |
| SahariParab | Festivals related to worship clan deity | Kartik | October-November |
| Goram Puja | Festival of village deity | Agrahayan | November-December |
| BeijhaTui | Festival of making sweet pic | Poush | December-January |
| MagheParab | Worship of Goram and other village and family deities | Magh | January-February |
| BahaParab | Festival of Colour | Phalgun | February-March |

**Livelihood:**In the Chhatna CD blockamong the class of total workers, cultivators numbered 14,774 and formed 19.13%, agricultural labourers numbered 32,500 and formed 42.09%, household industry workers numbered 2,835 and formed 3.67% and other workers numbered 27,103 and formed 35.10%. Total workers numbered 77,212 and formed 39.59% of the total population, and non-workers numbered 117,826 and formed 60.41% of the population.

**Infrastructure:**According to District Census Handbook, Bankura, there are 277 inhabited villages in the Chhatna CD block, 100% villages have power supply. 276 villages (99.64%) have drinking water supply. 27 villages (9.75%) have post offices. 230 villages (83.03%) have telephones (including landlines, public call offices and

mobile phones). 93 villages (33.57%) have pucca (paved) approach roads and 70 villages (25.27%) have transport communication (includes bus service, rail facility and navigable waterways). 12 villages (4.33%) have agricultural credit societies and 11 villages (3.97%) have banks.

**Agriculture:**There were 77 fertiliser depots, 15 seed stores and 80 fair price shops in the CD block. In 2013-14, persons engaged in agriculture in Chhatna CD block could be classified as follows: bargadars 10.22%, patta (document) holders 11.36%, small farmers (possessing land between 1 and 2 hectares) 6.64%, marginal farmers (possessing land up to 1 hectare) 20.56% and agricultural labourers 51.20%.In 2003-04 net area sown in Chhatna CD block was 24,932 hectares and the area in which more than one crop was grown was 2,571 hectares. In 2013-14, the total area irrigated in Chhatna CD block was 2,625 hectares, out of which 1,695 hectares by tank water, 860 hectares by river lift irrigation, 45 hectares by shallow tube-wells and 25 hectares by open dug wells. In 2013-14, Chhatna CD block produced 6,976 tonnes of Aman paddy, the main winter crop, from 2,756 hectares. It also produced mustard.

**Handloom and pottery industries:**The handloom industry engagesthe largest number of persons in the non-farm sector and hence is important in Bankura district. The handloom industry is well established in all the CD blocks of the district and includes the famous Baluchari saris. In 2004-05 Chhatna CD Block had 1,112 looms in operation.

Bankura district is famous for the artistic excellence of its pottery products that include the famous Bankura horse. The range of pottery products is categorised as follows: domestic utilities, terracotta and other decorative items and roofing tiles and other heavy pottery items. Around 3,200 families involved in pottery making in the district in 2002, 212 families were involved in Chhatna CD block.

**Education:**In 2013-14, Chhatna CD block had 244 primary schools with 16,444 students, 20 middle schools with 2,105 students, 12 high schools with 7,881 students and 8 higher secondary schools with 6,840 students. Chhatna CD block had 1 general college with 696 students, 1 professional/ technical institution with 207 students and

386 institutions for special and non-formal education with 10,441 students. Chhatna CD Block had 13 mass literacy centres.

According to the 2011 census, in the Chhatna CD block, among the 277 inhabited villages, 44 villages did not have a school, 55 villages had two or more primary schools, 45 villages had at least 1 primary and 1 middle school and 26 villages had at least 1 middle and 1 secondary school.Saldiha College at Saldiha was established in 1966. It has hostel facilities – three for boys and one for girls. Chhatna Chandidas Mahavidyalaya was established at Ghoramuli in 2007.The College of Agriculture, Chhatna, an extended campus of Bidhan Chandra Krishi Vishwavidyalaya was started in 2015.

**Healthcare facilities:** In 2014, Chhatna CD block had 1 rural hospital, 4 primary health centres and 1 private nursing home with total 59 beds and 7 doctors. It had 36 family welfare sub centres and 1 family welfare centre. 5,199 patients were treated indoor and 211,882 patients were treated outdoor in the hospitals, health centres and subcentres of the CD Block.Chhatna Rural Hospital, with 30 beds at Chhatna, is the major government medical facility in the Chhatna CD block. There are primary health centres at Jorhia (with 10 beds), Salchura (Kamalpur) (with 2 beds), Jhantipahari (with 6 beds) and Bhagabanpur (with 6 beds).There is also a super speciality hospital in Sarberia with modern medical facilities.

**Transport Facilities:**In 2013-14, Chhatna CD block had 9 originating/ terminating bus routes. The Kharagpur-Bankura-Adra line of South Eastern Railway passes through this CD block. Chhatna railway station and Jhantipahari railway station are on this line. The Saltora-Bankura section of State Highway 8 running from Santaldih (in Purulia district) to Majhdia (in Nadia district) passes through this CD block.

**Others:**In 2013-14, Chhatna CD block had offices of 9 commercial banks and 4 gramin banks. The Bankura district is listed as a backward region and receives financial support from the Backward Regions Grant Fund. The fund, created by the Government of India, is designed to redress regional imbalances in development. As of 2012, 272 districts across the country were listed under this scheme. The list includes 11 districts of West Bengal.

## Details of 10 villages of Chhatna block

Within the Chhatna block of Bankura district, the present researcher has chosen 10 villages out of 277 villages names: Amakunda, Anturibana, Bahara, Chinabari, Cholagara, Rangametia, Satkhulia, Susunia Janthal, Susunia Parasibana, Siuli Pahari. The details of these villages have been discussed below:

**Amakunda village:** According to Census 2011 village code of Amakunda village is 326537. Amakunda village is located in Chhatna subdivision of Bankura district in West Bengal, India. It is situated 30.9km away from sub-district headquarter Chhatna. Bankura is the district headquarter of Amakunda village. As per 2009 status, Chinabari is the gram panchayat of Amakunda village. Total geographical area of village is 290.77 hectares. Amakunda has a total population of 632 people, out of which the male population is 320 while female population is 312. Literacy rate of Amakunda village is 59.81% out of which 68.44% males and 50.96% females are literate. There are about 138 houses in Amakunda village. Bankura is nearest town to Amakunda for all major economic activities, which is approximately 33km away. Amakunda's total area is 158.24 hectares, forest area is 44.52 hectares, non-agricultural area is 88.01 hectares. It s total irrigated area is 43.25 hectares and total water fall area is 0 hectares. Regarding health facilities of villagers, there are no such high qualified doctors, no RMP doctors, no faith healers, medical stores are unavailable within the village.

Government pre-primary and govt. primary schools are available in this village. The nearest Govt Polytechnic College is in Bishnupur. Nearest Govt Senior Secondary School is in Kamalpur. Nearest Govt Disabled School, Govt Arts and Science Degree College, Private Engineering College and Govt Medical College are in Bankura. Nearest Govt Pre Primary School and Govt Secondary School are in Jamtora. The nearest Govt ITA College is in Chhatna. Nearest Govt MBA college is in Kolkata.Paddy is agriculture commodities grow in this village. Total irrigated area in this village is 43.25 hectares from boreholes or tube wells 1.21 hectares and from lakes or tanks 10.47 hectares are the sources of irrigation.

Treated tap water supply allthrough the year and in summer also available. Untreated tap water supply is available all through the year. Uncovered well and hand pump are

other sources of drinking water. No drainage system is available in this village. There is a system to collect garbage on street. Drain water is discharged into the sewer plant.Mobile coverage is available. The nearest internet centre is within 5 - 10 kms. The nearest private courier facility is within 5 - 10 kms. The nearest public bus service available within 5 - 10 kms. There is no railway station in less than 10 kms. Distance.Man pulled cycle rickshaws are available in this village. The nearest district board is within 5-10 kms. Kuccharoad and Macadam road are other roads and transportation within the village.No ATM is within less than 10 kms. The nearest commercial bank is in 5 - 10 kms. No cooperative bank is within less than 10 kms.This Village has a power supply with 14 hours power supply in summer and 22 hours power supply in winter. Anganwadi centre, ASHA and polling station are the other amenities in the village.

***AnturiBana:*** According to Census 2011 information, the location code AnturiBana village is 326526. Anturi Bana village is located in Chhatna subdivision of Bankura district in West Bengal, India. It is situated 26km away from sub-district headquarter Chhatna. Bankura is the district headquarter of AnturiBana village. As per 2009 stats, Chinabari is the gram panchayat of Anturi Bana village.The total geographical area of village is 115.75 hectares. Anturi Bana has a total population of 461 people, out of which the male population is 237 while female population is 224. Literacy rate of AnturiBana village is 63.99% out of which 76.37% males and 50.89% females are literate. There are about 102 houses in Anturi Bana village. Pincode of Anturi Bana village locality is 722137.Bankura is the nearest town to Anturibana for all major economic activities, which is approximately 36kms.away.As per constitution of India, and Panchyati Raaj Act (Amendment 1998), Anturi Bana village is administrated by Sarpanch (Head of Village) who is an elected representative of the village. As per the Census 2011, the literacy rate of Anturi Bana is 72.7%**.**Thus, AnturiBana village has higher literacy rate compared to 62.1% of Bankura district. The male literacy rate is 87.02% and the female literacy rate is 57.58% in Anturi Bana village.

Among the total population of Anturi Bana, Schedule Caste (SC) constitutes 27.8% while Schedule Tribe (ST) are 7.6%.People living in Anturi Bana depend on multiple skills, total workers are 187 out of which men are 137 and women are 50. Total 20 cultivators are dependent on agriculture farming out of 20 are cultivated by men and 0

are women. 35 people work in agricultural land as a labour in Anturi Bana, men are 24 and 11 are women. In Anturi Bana village out of total population, 187 are engaged in work activities. 42.8% of workers describe their work as main work (Employment or Earning more than 6 Months) while 57.2% are involved in marginal activity providing livelihood for less than 6 months. Out of 187 workers engaged in main work, 20 are cultivators (owner or co-owner) while 35 are agricultural labourer.

***Bahara:*** According to Census 2011 information the village code of Bahara village is 326543. Bahara village is located in Chhatna subdivision of Bankura district in West Bengal, India. It is situated 12km away from sub-district headquarter Chhatna. Bankura is the district headquarter of Bahara village. As per 2009 stats, Chinabari is the gram panchayat of Bahara village. Total geographical area of the village is 339.22 hectares. Bahara has a total population of 1,818 peoples, out of which male population is 923 while female population is 895. Literacy rate of Bahara village is 45.49% out of which 56.23% males and 34.41% females are literate. There are about 387 houses in Bahara village. The pincode of Bahara village locality is 722137.Bankura is nearest town to Bahara for all major economic activities, which is approximately 25km away.

The total population of Bahara is 1,818 out of which 923 are males and 895 are females thus the Average Sex Ratio of Bahara is 970. The population of Children of age 0-6 years in Bahara village is 273 which is 15% of the total population. There are 144 male children and 129 female children between the age 0-6 years. Thus, as per the Census 2011 the Child Sex Ratio of Bahara is 896 which is less than the Average Sex Ratio (970) of Bahara village.

As per the Census 2011, the literacy rate of Bahara is 53.5%**.** Thus, Bahara village has a lower literacy rate compared to 62.1% of Bankura district. The male literacy rate is 66.62% and the female literacy rate is 40.21% in Bahara village. As per constitution of India and Panchayati Raj Act (Amendment 1998), Bahara village is administrated by Sarpanch (Head of Village) who is elected representative of the village.

Out of the total population, the Schedule Caste (SC) constitutes 35.8% while Schedule Tribe (ST) were 40.5% in Baharavillage. In Bahara village out of the total population, 854 were engaged in work activities; 51.5% of workers describe their work as main

work (Employment or Earning more than 6 Months) while 48.5% were involved in marginal activity providing livelihood for less than 6 months. Out of 854 workers engaged in main work, 60 were cultivators (owner or co-owner) while 284 were agricultural labours. People living in Bahara depend on multiple skills, total workers are 854 out of which men are 508 and women are 346. A total 60 cultivators were dependent on agricultural farming out of which were men and 1 was a women. 284 people worked in agricultural land as labourers in Bahara. Of these 284 people, 267 were men and 17 were women.

***Chinabari:*** According to Census 2011 information, the village code of Chinabari village is 326549. Chinabari village is located in Chhatna subdivision of Bankura district in West Bengal, India. It is situated 19.9km away from sub-district headquarter Chhatna. Bankura is the district headquarters of Chinabari village. As per 2009 stats, Chinabari village is also a gram panchayat.There are about 237 houses in Chinabari village. Pincode of Chinabari village locality is 722137.Bankura is the nearest town to Chinabari for all major economic activities, which is approximately 34km away.As per constitution of India, and Panchyati Raj Act, Chinabari village is administrated by Sarpanch (Head of Village) who is an elected representative of village.

As per available data from the year 2009, 1125 persons live in 237 households in the village Chinabari. The population density of Chinabari is 1868.77 persons per square kms.There are 552 female individuals and 573 male individuals in the village. Out of the total population, females constitute 49.07% and males constitute 50.93%.There are 153 scheduled caste persons of which 79 are females and 74 are males. Females constitute 51.63% and males constitute 48.37% of the scheduled caste population. Scheduled castes constitute 13.6% of the total population.There are 360 scheduled tribesof which 177 are females and 183 are males. Females constitute 49.17% and males constitute 50.83% of the scheduled tribe population. Scheduled tribes constitute 32% of the total population. In Chinabari village the population of children with age 0-6 is 145 which makes up 12.89 % of the total population of village. Average Sex Ratio of Chinabari village is 963 which is higher than the West Bengal state average of 950. Child Sex Ratio for the Chinabari as per census is 883, lower than the West Bengal average of 956.

Total area of Chinabari is 60.2 hectares as per data of 2009. Maps, reports and datasets of Chinabari on topography, land use land cover(LULC), watershed / hydrological parameters etc. are available as a professional paid service. About 60.2 hectares is for non-agricultural use.There is a railway station more than 10 kms away from the village.Chinabari village has a lower literacy rate compared to West Bengal. In 2011, the literacy rate of Chinabari village was 61.73 % compared to 76.26 % of West Bengal. In Chinabari the male literacy stands at 75.00 % while female literacy rate was 48.14 %. There are 7 government primary schools in the village Chinabari.There are 3 government middle schools in the village Chinabari.There are no private or government secondary schools in the village. However, there is a private secondary school in Kamalpur, which is less than 5 kms away from Chinabari.There are no private or government senior secondary schools in the village. However, there is a private senior secondary school in Kamalpur, which is less than 5 kms away from Chinabari.Chinabari village of Bankura has a substantial population of Schedule Tribe (ST). Schedule Tribe (ST) constitutes 32.00 % while Schedule Caste (SC) constitutes 13.60% of the total population in Chinabari village. In Chinabari village out of the total population, 489 were engaged in work activities. 66.67% of the workers describe their work as main work (Employment or Earning more than 6 Months). 33.33% were involved in marginal activity providing livelihood for less than 6 months. Of the 489 workers engaged in main work, 59 were cultivators (owner or co-owner) while 65 were agricultural labourers.

***Cholagara-***According to Census 2011 information, the location code or village code of Chholagara village is 326539. Chholagara village is located in Chhatna subdivision of Bankura district in West Bengal, India. It is situated 27km away from sub-district headquarter Chhatna. Bankura is the district headquarter of Chholagara village. As per 2009 stats, Chinabari is the gram panchayat of Chholagara village. Total geographical area of the village is 282.24 hectares. Chholagara has a total population of 518 peoples, out of which male population is 273 while female population is 245. Literacy rate of Chholagara village is 61.78% out of which 76.92% males and 44.90% females are literate. There are about 107 houses in Chholagara village. Pincode of Chholagara village locality is 722137.Bankura is nearest town to chholagara for all major economic activities, which is approximately 36km away.

***Rangametya-***According to Census 2011 information the village code of Rangametia village is 326547. Rangametia village is located in Chhatna subdivision of Bankura district in West Bengal, India. It is situated 18.3km away from sub-district headquarter Chhatna. Bankura is the district headquarter of Rangametia village. As per 2009 stats, Chinabari is the gram panchayat of Rangametia village. Total geographical area of village is 408.83 hectares. Rangametia has a total population of 987 peoples, out of which male population is 492, while female population is 495. Literacy rate of Rangametia village is 56.84%, out of which 70.33% males and 43.43% females are literate. There are about 190 houses in Rangametia village. Pincode of Rangametia village locality is 722137.Bankura is nearest town to Rangametia for all major economic activities, which is approximately 27km away.

There are 759 scheduled tribe persons of which 391 are females and 368 are males. Females constitute 51.52% and males constitute 48.48% of the scheduled tribe population. Scheduled tribes constitute 76.9% of the total population.Population density of Rangametia is 712.64 persons per square kilometer. Total area of Rangametia is 138.5 hectares, as per the data available for the year 2009.About 96.41 ha hectares is for non-agricultural use.

As per the Census 2011, the literacy rate of Rangametia is 65.5%**.** Thus, Rangametia village has a higher literacy rate compared to 62.1% of Bankura district. The male literacy rate is 81.6% and the female literacy rate is 49.65% in Rangametia village. There are 2 government pre-primary schools in the village Rangametia. There are 2 government primary schools in the village Rangametia. There are no private or government middle schools in the village. However, there is a private middle school in Kamalpur, which is less than 5 kms away from Rangametia. There are no private or government secondary schools in the village. However, there is a private secondary school in Kamalpur, which is less than 5 kms away from Rangametia. There are no private or government senior secondary schools in the village. However, there is a private senior secondary school in Kamalpur, which is less than 5 kms away from Rangametia.

In Rangametia village out of the total population, 522 were engaged in work activities. 27.59 % of workers describe their work as main work (Employment or Earning more

than 6 Months). 72.41 % were involved in marginal activity providing livelihood for less than 6 months. Out of 522 workers engaged in main work, 10 were cultivators (owner or co-owner) while 27 were agricultural labourer.

***Satkhulia:*** According to Census 2011 information the village code of Satkhulia village is 326525. Satkhulia village is located in Chhatna subdivision of Bankura district in West Bengal, India. It is situated 20km away from sub-district headquarter Chhatna. Bankura is the district headquarter of Satkhulia village. As per 2009 stats, Chinabari is the gram panchayat of Satkhulia village. Total geographical area of the village is 111.76 hectares. Satkhulia has a total population of 344 peoples, out of which the male population is 175 while the female population is 169. There are about 74 houses in Satkhulia village. Pincode of Satkhulia village locality is 722137. Bankura is the nearest town to Satkhulia for all major economic activities, which is approximately 35km away.About 27.59 hectatesis for non-agricultural use.

There are 343 scheduled tribes of which 168 are females and 175 are males. Females constitute 48.98% and males constitute 51.02% of the scheduledtribe population. Scheduled tribes constitute 99.71% of the total population. There is no population of Schedule Caste (SC) in Satkhulia village of Bankura.

Literacy rate of Satkhulia village is 54.65% out of which 62.86% males and 46.15% females are literate. There is a government pre-primary school in the village Satkhulia. There is a government primary school in the village Satkhulia. There are no private or government middle schools in the village. However, there is a private middle school in Kamalpur, which is 5-10 kms away from Satkhulia. There are no private or government secondary schools in the village. However, there is a private secondary school in Kamalpur, which is 5-10 kms away from Satkhulia. There are no private or government senior secondary schools in the village. However, there is a private senior secondary school in Kamalpur, which is 5-10 kms away from Satkhulia. There are no private or government arts and science degree colleges in the village. However, there is a private arts and science degree college in Bankura, which is more than 10 kms away from Satkhulia. There are no private or government engineering colleges in the village. However, there is a government engineering college in Bankura, which is more than 10 kms away from Satkhulia. There are no private or government medical colleges in the

village. However, there is a private medical college in Bankura, which is more than 10 kms away from Satkhulia. There are no private or government management institutes in the village. However, there is a government management institute in Bankura, which is more than 10 kms away from Satkhulia. There are no private or government polytechnic institutes in the village. However, there is a private polytechnic institute in Bishnupur, which is more than 10 kms away from Satkhulia. There are no private or government vocational training school / ITIs in the village. However, there is a private vocational training school / ITI in Chhatna, which is more than 10 kms away from Satkhulia. There are no non formal training centres in the village Satkhulia or anywhere in the nearby villages. There are no private or government differently abled schools in the village. However, there is a private differently abled school in Bankura, which is more than 10 kms away from Satkhulia.

In Satkhulia village out of total population, 122 were engaged in work activities. 94.26 % of workers describe their work as main work (Employment or Earning more than 6 Months). 5.74 % were involved in marginal activity providing livelihood for less than 6 months. Out of 122 workers engaged in main work, 52 were cultivators (owner or co-owner) while 59 were agricultural labourers.

***SusuniaJamthol:*** According to Census 2011 information village code of Susunia Jamthol village is 326424. Susunia Jamthol village is located in Chhatna subdivision of Bankura district in West Bengal, India. It is situated 15.4km away from sub-district headquarter Chhatna. Bankura is the district headquarter of Susunia Jamthol village. As per 2009 stats, Jhunjka is the gram panchayat of Susunia Jamthol village. Total geographical area of the village is 267.89 hectares. Susunia Jamthol has a total population of 1,018 peoples, out of which the male population is 520 while the female population is 498. There are about 215 houses in Susunia Jamthol village. Bankura is the nearest town to Susunia Jamthol for all major economic activities, which is approximately 28km away. As per constitution of India and Panchayati Raj Act, Susunia Jamthol village is administrated by Sarpanch (Head of Village) who is the elected representative of village.

Susunia Jamthol village has a lower literacy rate compared to West Bengal. In 2011, literacy rate of Susunia Jamthol village was 64.53% compared to 76.26 % of West

Bengal. In Susuni aJamthol the male literacy stood at 78.64% while the female literacy rate was 50.67%.Literacy rate of Susunia Jamthol village is 56.29% out of which 66.54% males and 45.58% females are literate.

In Susunia Jamthol village population of children with age 0-6 is 130 which makes up 12.77 % of total population of village. Average Sex Ratio of Susunia Jamthol village is 958 which is higher than West Bengal state average of 950. Child Sex Ratio for the Susunia Jamthol as per census is 625, lower than West Bengal average of 956.In Susunia Jamthol village, most of the village population is from Scheduled Tribe (ST). Scheduled Tribe (ST) constitutes 56.97 % while Scheduled Caste (SC) were 16.80 % of total population in Susunia Jamthol village.

In Susuniab Jamthol village out of total population, 368 were engaged in work activities. 70.11 % of workers described their work as main Work (Employment or Earning more than 6 Months) while 29.89 % were involved in marginal activity providing livelihood for less than 6 months. Out of 368 workers engaged in main work, 145 were cultivators (owners or co-owners) while 37 were agricultural labourer.

***Susunia Parasibana:*** According to Census 2011 information the village code of Shushunia Parasibana village is 326440. Shushunia Parasibana village is located in Chhatna subdivision of Bankura district in West Bengal, India. It is situated 9.7km away from sub-district headquarter Chhatna. Bankura is the district headquarter of Shushunia Parasibana village. As per 2009 stats, Susunia is the gram panchayat of Shushunia Parasibana village. The total geographical area of the village is 172.67 hectares. Shushunia Parasibana has a total population of 234 people, out of which male population is 114 while female population is 120. Bankura is the nearest town to Shushunia Parasibana for all major economic activities, which is approximately 23km away. As per constitution of India and Panchayati Raj Act, Shushunia Parasibana village is administrated by Sarpanch (Head of Village) who is the elected as representative of the village.

In Shushunia Parasibana village, the population of children with age 0-6 is 39 which makes up 16.67% of total population of the village. Average Sex Ratio of Shushunia Parasibana village is 1053 which is higher than West Bengal state average of 950. Child

Sex Ratio for the Shushunia Parasibana as per census is 1438, higher than West Bengal average of 956. In Shushunia Parasibana village, most of the villagers are from Scheduled Caste (SC) & Scheduled Tribe (ST). Scheduled Caste (SC) constitutes 71.37% while Scheduled Tribe (ST) constitutes 28.63% of total population in Shushunia Parasibana village.

Literacy rate of Shushunia Parasibana village is 57.26% out of which 74.56% males and 40.83% females are literate. There are about 54 houses in Shushunia Parasibana village. Shushunia Parasibana village has a lower literacy rate compared to West Bengal. In 2011, literacy rate of Shushunia Parasibana village was 68.72 % compared to 76.26 % of West Bengal. In Shushunia Parasibana male literacy stands at 86.73 % while female literacy rate was 50.52 %.

In Sushnia Parasibana village out of total population, 56 were engaged in work activities. 92.86 % of workers described their work as main work (Employment or Earning more than 6 Months) while 7.14 % were involved in marginal activity providing livelihood for less than 6 months. Out of 56 workers engaged in wain Work, 0 were cultivators (owners or co-owners) while 28 were agricultural labourers.

***SiuliPahari:*** According to Census 2011 information the location code of Siuli Pahari village is 326491. Siuli Pahari village is located in Chhatna subdivision of Bankura district in West Bengal, India. It is situated 9.9km away from the sub-district headquarter Chhatna. Bankura is the district headquarter of SiuliPahari village. As per 2009 stats, Ghosergram is the gram panchayat of Siuli Pahari village.Total geographical area of the village is 215.81 hectares. Siuli Pahari has a total population of 1,031 people, out of which male population is 526 while female population is 505. There are about 223 houses in Siuli Pahari village. Pincode of Siuli Pahari village locality is 722137. Bankura is the nearest town to Siuli Pahari for all major economic activities, which is approximately 20km away. Population density of Siuli Pahari is 1345.95 persons per square kilometre. In Siuli Pahari village population of children with age 0-6 is 124 which makes up 12.03% of total population of the village. Average Sex Ratio of Siuli Pahari village is 960 which is higher than West Bengal state average of 950. Child Sex Ratio for the Siuli Pahari as per census is 1102, higher than West Bengal average of 956. As per constitution of India and Panchayati Raj Act, Siuli Pahari village is administrated by Sarpanch (Head of Village) who is the elected representative of village.

Siuli Pahari village has a lower literacy rate compared to West Bengal. In 2011, literacy rate of SiuliPahari village was 61.63% compared to 76.26% of West Bengal. In Siuli Pahari, Male literacy stood at 71.09% while female literacy rate was 51.59%.Literacy rate of Siuli Pahari village is 54.22% out of which 63.12% males and 44.95% females are literate. There are 2 government pre-primary schools and government primary schools in the village Siuli Pahari. There are no middle schools in the village Siuli Pahari or anywhere in the nearby villages. There are no private or government secondary schools in the village. However, there is a private secondary school in Dumdumi, which is less than 5 kms away from Siuli Pahari. There are no private or government senior secondary schools in the village. However, there is a private senior secondary school in Jhantipahari, which is less than 5 kms away from Siuli Pahari.

As per available data from the year 2009, 1031 persons live in 223 households in the village SiuliPahari. There are 505 female individuals and 526 male individuals in the village. Females constitute 48.98% and males constitute 51.02% of the total population.There are 554 scheduled caste persons of which 265 are females and 289 are males. Females constitute 47.83% and males constitute 52.17% of the scheduled caste population. Scheduled castes constitute 53.73% of the total population.There are 23 scheduled tribe persons of which 11 are females and 12 are males. Females constitute 47.83% and males constitute 52.17% of the scheduled tribe population. Scheduled tribes constitute 2.23% of the total population.

In SiuliPahari village out of total population, 420 were engaged in work activities. 81.43 % of workers describe their work as main work (Employment or Earning more than 6 Months) while 18.57 % were involved in marginal activity providing livelihood for less than 6 months. Out of 420 workers engaged in main work, 51 were cultivators (owner or co-owners) while 213 were agricultural labourers.

## Bankura District and its Tribals

The district of Bankura is adjacent to Burdwan district and is separated from the district by river Damodar. The district is surrounded by Hoogli district, districts of Midnapore and Puruliya. The shape of Bankura district resembles roughly a triangle and its total geographical area is 6,881.0 sq. kms. Bankura district comprises 22 development blocks

like Saltora, Mejhia, Borjora, Gangajhalghati, Chhatna, Onda, Indpur etc. With respect to proportion of tribal population, Bankura district ranks fifth among all districts of West Bengal. Important tribes that settled within jurisdiction of Bankura district are Santals, Bhumijas, Koras, small percentage of Mundas, Kherrias, Oraons and Mahalis.

- ***The Santals-***On the basis of physical features, the Santals fall under the Proto-Australoid group who have short to medium stature, long head, broad and flat nose and evertedlips.Land of Santals is between river Damodar and river Kasai. Santals are munda-speaking people and have taken their name from the geographical area known as Saont or Samantabhumi where they have settled after separation from the mother stock. The word Saont al means inhabitants of the region of Saont or Samantabhumi. Due to historical evolution, the Santals migrated from their original homeland AhiriPipri towards Chai-Champa where they remained for several generations. Previously they had to face trouble then they went to Jhalda that was then under the possession of Mundas. Gradually, they were compelled to push on to Saont. The Santali society is patriarchal; village organisation of their society influenced on social, economic and religious life. Village headman is known as Manjhi. The Paramanik or assistant of Manjhi bears all responsibilities in absence of headman. The jog-Manjhi looks after the morals of boys and girls. Naia is a village priest and his assistant is KudamNaeke who worships nature and forest deities. Godet is the news bearer of the headman, Manjhiwho has responsibility at time of Pujas or festivals. The welfare of the community is looked after by Manjhi, the headman. Among the Santals, women possess high position with regard to many things. Marriage is generally arranged by parents although love-marriage is uncommon. Santals live on agriculture and the landless ones act as labourers. The tools of agricultural operations are traditional in nature. They even practise hunting and cattle rearing which are other sources of earnings.

- ***The Bhumijas-***The Bhumijas of Bankura district forms a sort of detribalised section of Mundari group. They are more Hindu than tribes. They are segregated into different septs like Gulgu, Hembram and Patti. The Bhumijas are agriculturists cultivating crops like corn, bajra and oilseeds. Rules and regulations of the village are maintained by Panchayet or the head of its known as Pradhan. Village priests are engaged in conducting religious activities and religious culture is akin to Hindu

society. Sorhul is a festival that is celebrated at end of May, and purpose of it is to protect agricultural crops.

- ***The Koras-***Koras are excavated from different ethnic and linguistic groups of tribals residing in Chhotanagpur area. They are a branch of Mundari group. The name Kora has been derived from their profession of earth-digging. Besides their original profession, they even practise agriculture either in lands or in lands of others. Koras follow patriarchal form of society, the head of village organisation is Mahato and his assistant is known as Paramanik. The priest of the society and the appointment of the Mahatois hereditary. Over the village tribal Panchayet, there exists the Anchalpanchayet where the responsible persons are Panrhe, Chenridar and AeinMorhol. Unsolved problems by village panchayets are taken up by Anchalpanchayets; the village organisation deals with various types of social and religious offences and administration punishes usually in the form of social boycott or excommunication. Marriage among the Koras is settled by the mediator and love marriage is uncommon.

- ***The Mundas-***In Bankura district, Mundas are nearly two percent of total tribal people in the district. Their profession is cultivating land and hunting in forests. Village organisations were controlled by panchayets where Munda, Pahan and Mahato were prominent persons. They worship Singhbonga, the creator, Jaherburu, Chandibonga, Buru bonga, Ikirbonga and Naga. The Mundas enjoy different festivals in separate months of the year. Important festivals are MaghePurnima, SarhulParab, KaramParab and BatouliParab.

- ***The Kharrias-***TheKharrias are identical to the Juangs. They sell chob- a fibre used for making ropes. They used to live in the area between Rohtas and Patna; due to several problems they migrated towards river Koel and the place where they settled by that river is named as Pora. They eventually migrated towards district of Bankura. Kharias worship Bero, the sun. Five sacrifices are prevalent in every family. Religious festivals are akin to those of Mundas. With regard to marriage, there is considerable similarity with Hindus. They practise agriculture as an

ostentible profession but they have also been found to practise robbery at night in their neighbouring villages inhabited by middle-class farmers.

Following the data gathered from the above research setting, the researchers went ahead with the exploration of the topic **"Indigenous Medical Practices Among Tribes: A Sociological Study in Bankura District of West Bengal"**.

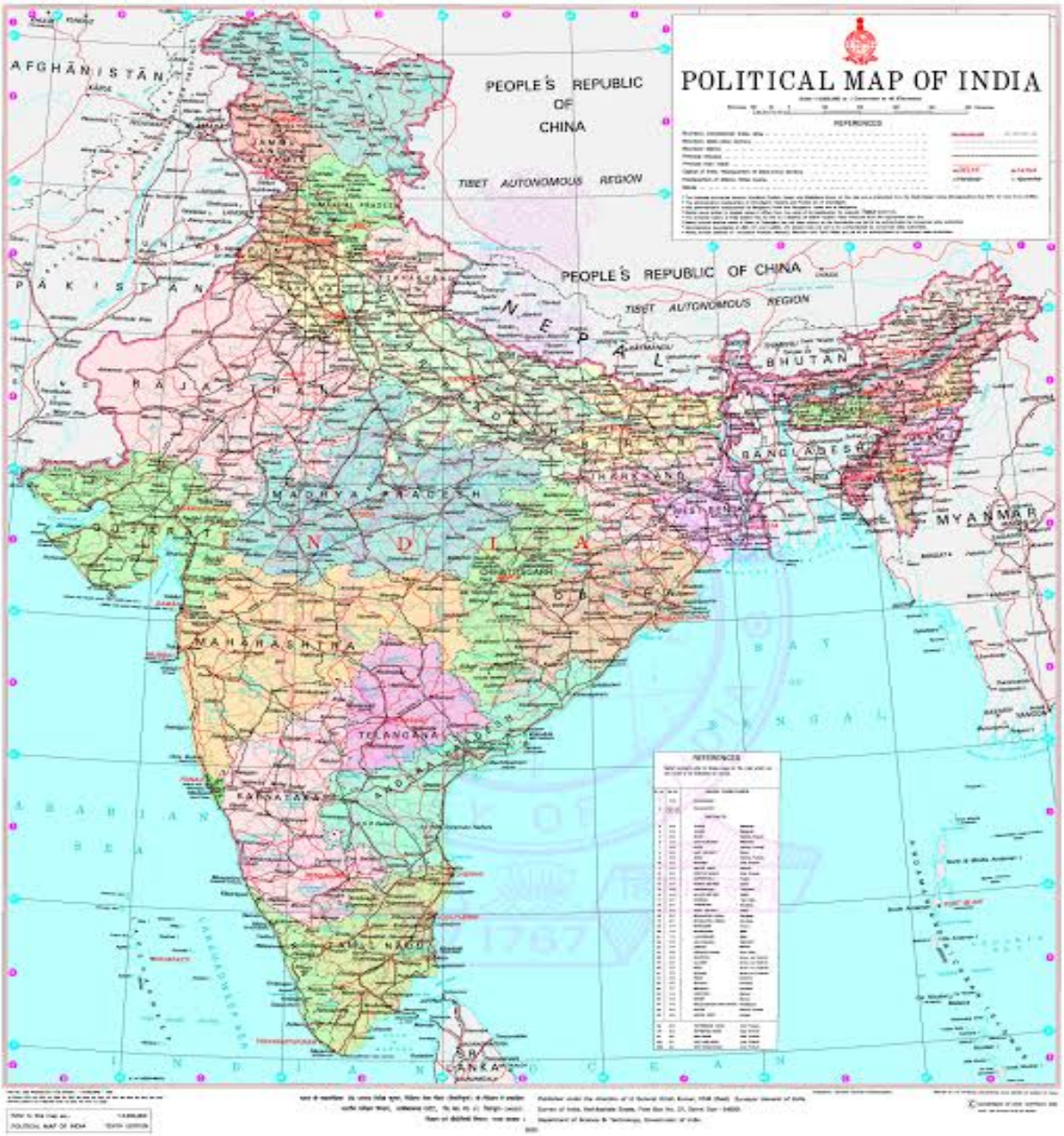



**Figure 1: Map showing political features of India**


**Figure 2: Map showing political distribution of West Bengal**

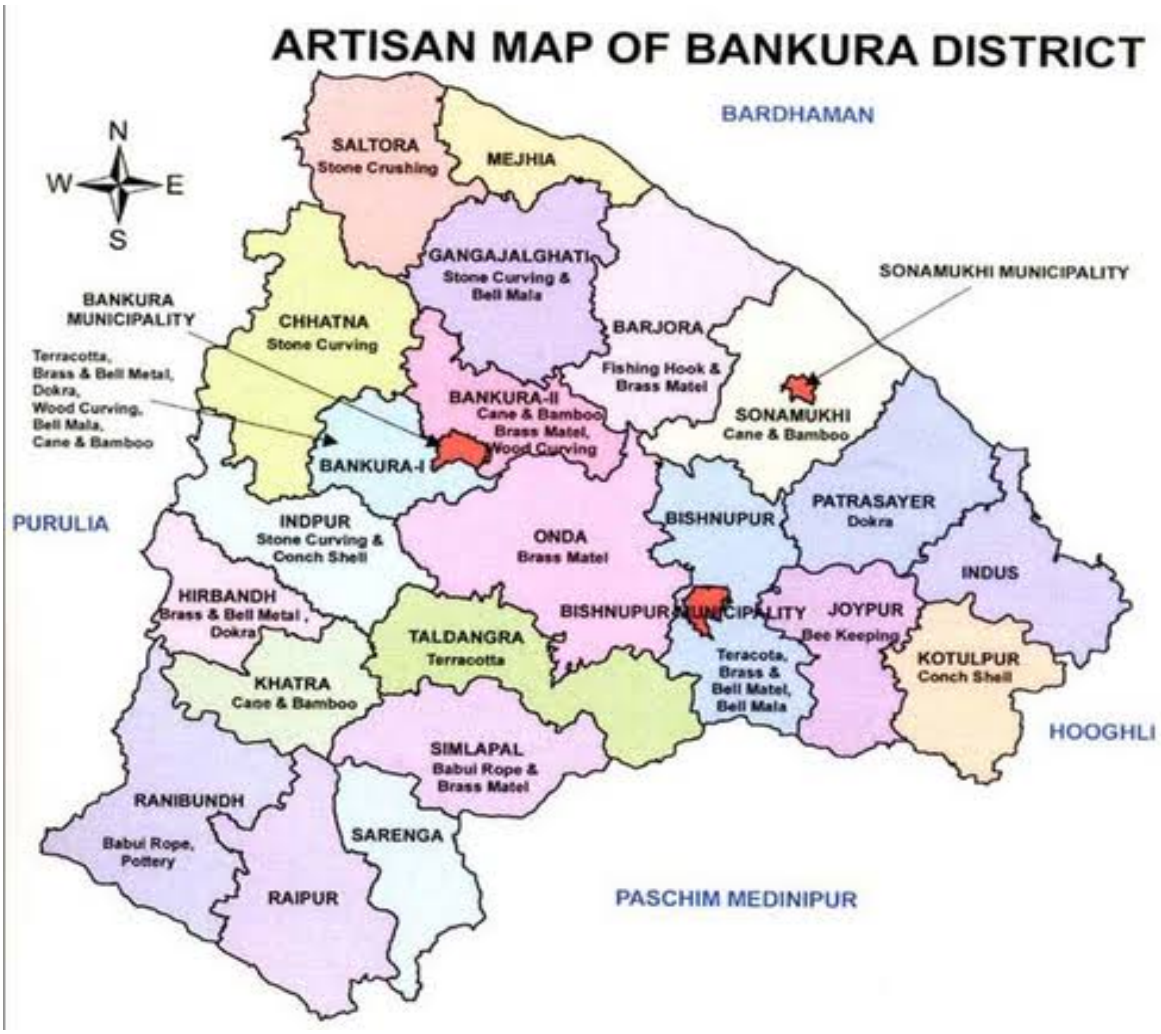



**Figure 3: Map showing CD Blocks and Municipalities of Bankura**

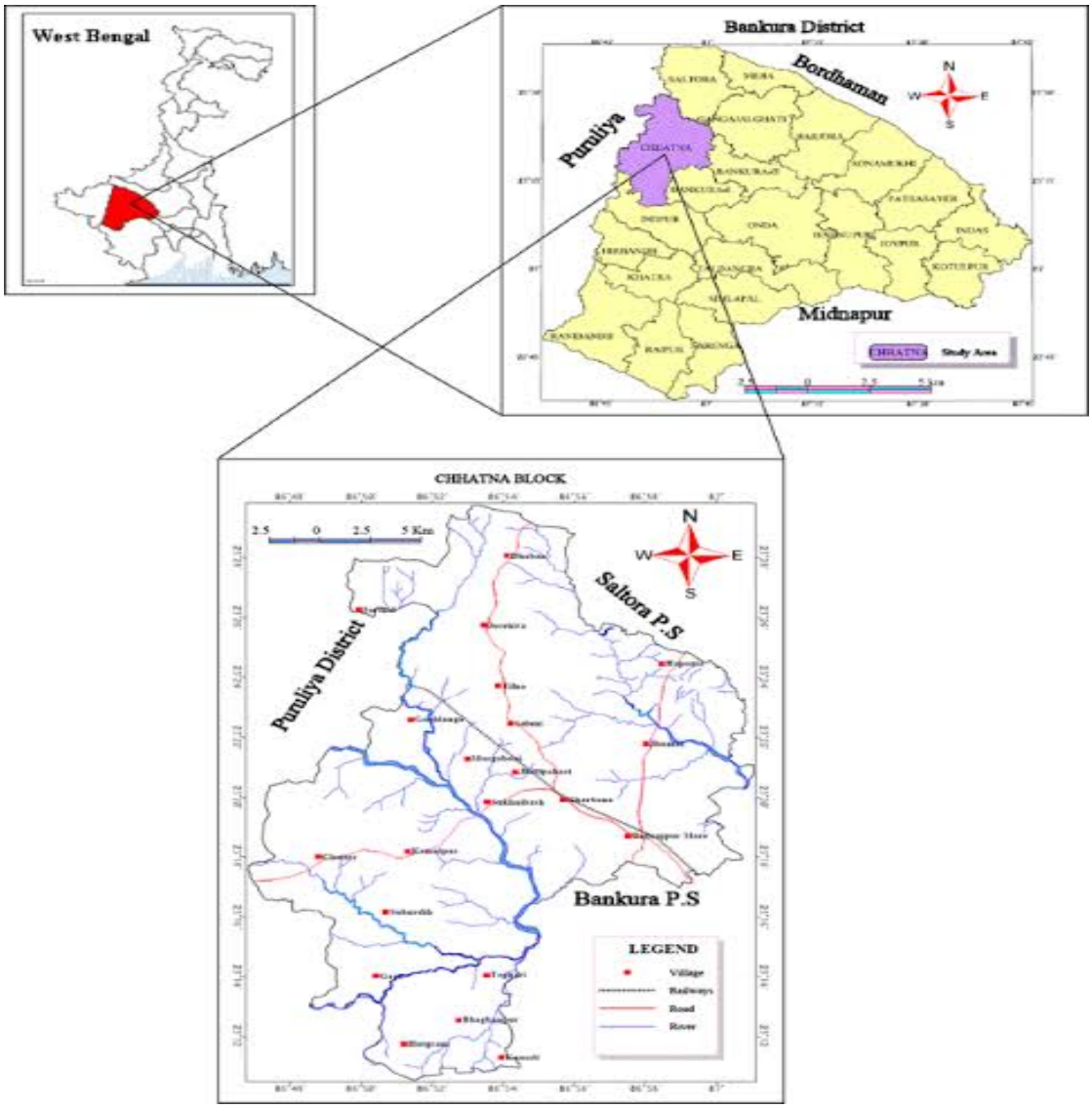



**Figure 4: Map showing villages in Chhatna Block of Bankura, West Bengal**

# CHAPTER – 4
# RESEARCH METHODOLOGY

# RESEARCH METHODOLOGY

Method is a tool or a technique used to collect data. It is a procedure for obtaining knowledge based on empirical observations and logical reasoning. Methodology is a logic of scientific investigation. Methodology means descriptions, explanation and justification of methods and not the methods themselves. Methodology is concerned with techniques; it inquires into the potentialities and limitations of some technique. It is a plan and procedure for carrying out research, it refers to research techniques and strategies for gaining valid information. It is an approach to understand phenomena. It is a procedure of empirical investigation; it is not concerned with building knowledge but how knowledge is built. It emphasizes on how facts are collected, classified and analysed.

**Statement of the Problem**-The tribals being the primitive inhabitants of India, is really a subject matter for further studies. **"The Indigenous Medical Practices among the Tribals: A Sociological Study in Bankura District"**, is the present research topic which must receive attention as a research topic. The former subject that has been selected as the primitive way of therapeutic treatment / cure among the tribals, is a matter of discussion and knowledge. Inspite of such improvements and advancements among the citizens of the third world by the Indian government, tribals remain at a distinct corner of the country. They can avail of no such benefits in any section of their life but still are content with what natural belongings they do possess. They lead such a simple life with a few impediments in the lap of nature. They have not acquired any formal education but with the help of various experiences in their daily lives they are much more knowledgeable than us in certain spheres of life. Their lifestyle is much more interesting than us as their bits and pieces are natural and pure. They purely depend upon nature for their livelihood and thus they try to preserve and protect natural elements more than we do. The indigenous medicines are fully nature oriented, though the duration of cure is a bit longer than allopathic medicines, but still they believe in natural medicines as it heals in a scientific way and can fully cure. For this above purpose, they go for afforestation and even worship natural elements like plants, animals and natural objects as they believe that these components help them to prevent and cure diseases. The problem has been chosen by the present researcher as she found that this

an interesting area of research where we can gather immense knowledge about the primitive inhabitants lifestyle, their respect for nature and belief moreover their faith and believe in traditional natural medicines that they use during treatment of diseases.

**Selection of the Area-** In the concerned research, the present researcher has selected Chhatna community development block of Bankura district of West Bengal. The Chhatna block comprises total 277 villages, out of which the researcher has chosen 10 villages such as Amakunda, Anturi Bana, Bahara, Chinabari, Cholagara, Rangametia, Satkhulia, Shushunia Jamthol, Shushunia Parasibana and Siuli Pahari. The researcher chose these villages as these fulfilled the basic criteria relevant to research topic. The major reasons are: These villages are predominantly inhabited by Santali tribes; these villages are around the Jungle Mahal area. These villages are near the famous Shushunia hill of Bankura district; the tribals of these villages are original inhabitants and are distant from the proper main village life and its members. Thus, they are fully dependent on natural resources including plants, herbs, trees and animals for their everyday existence and subsistence. They follow and uses indigenous medical treatment extracted from natural plants and herbs which fully serves the main theme of the research.

**Duration of the Field Work-**The present researcher took 2021-2022 to complete the entire field trip in 10 villages of Chhatna block of Bankura district in West Bengal, to collect primary data for the particular research.

**Method of Data collection-**A structured interview is called a standardised interview entailing the administration of an interview by an interviewer. The aim is for all interviewees to be given exactly same content of questioning. Questions are very specific and so often the interviewee give a fixed range of answers. The structured interview is a form of interview in survey research. In the present researcher, the research, has applied the face-to-face interview method.

**Tools of Data Collection**- The tools of data collection include questionnaire and interview schedules. Questionnaire is the main instrument in a survey research; a questionnaire consists of systematic compiling of questions that are provided to a sampling population. A questionnaire tool consists of two types of questions- open

ended and close ended questions. In an open-ended question, respondents can answer in their own way. Researchers allow unusual questions to be derived and respondents are free to answer without any hesitation. On the contrary, the application of close-ended questions is an easy way to process answers. It enhances the comparability of answers; it clarifies the meaning of questions for the respondents. In the present research, the researcher has applied both open and close ended questions.

**Sampling-** A Sample is a smaller representation of a larger whole, it is the easiest method of social investigation. A sample contains primary sampling units and a slice of population representing the universe. The purpose of sampling is to draw inferences concerning the universe. The elements in the process of sampling are: selection of sample, collection of information and drawing of samples. There are two types of sampling- probability sampling and non-probability sampling. Probability sampling is defined as the number of samples out of 130 samples drawn from a given population and the population estimates represented within the limits of tolerance. The effectiveness of probability model depends on types and characteristics of population and objectives of study. The types of probability sampling are simple random sampling, systematic sampling, purposive sampling, stratified random sampling- proportional, disproportional and weighted and cluster sampling. Non-probability sampling procedures do not employ the rules of probability theory, they do not claim representatives and are usually used for qualitative analysis. The types of non-probability sampling are convenience, purposive, quota, snow-ball and volunteer. In the research, the present research has applied purposive and snowball sampling.

Here, the researcher has chosen 130 respondents from respective village areas of Chhatna community block of Bankura Jungle Mahal area. In purposive sampling, the researcher chooses representatives who in her judgement about some characteristics required of sample members are thought to be relevant to research problem and are easily available. In this technique, some variables are important and it represents the universe but the selection of units is deliberated and based on prior judgement. In snowball sampling, the present researcher begins the research with few respondents who are known and are available to him. These respondents in due course recommend other names who can meet the criteria of research problem and in turn this process goes on.

This process is continued until adequate respondents are interviewed or until no more respondents are discovered.

**Pilot Study**-Pilot study known as feasibility study refers to mini version of full scale study and is conducted for developing and testing adequacy of research instrument. The objective of performing the pilot study is to validate the interview schedule. It helps the researcher in determining that the questions are understood and responded by respondents and the final questionnaire is drafted for research.

Before conducting actual survey, the researcher undertook 20 pilot studies and modifications of questionnaire were done on the basis of pilot study. Pilot study necessary in survey research for right question preparation. It helps to avoid irrelevant research questions and makes research work accurate.

It refers to one's collected information which must be transformed into data.

**Research Design**- "A Research design is the specification of methods and procedures for acquiring the information needed. It is the overall operational pattern or framework of the project that stipulates what information is to be collected from which sources and by what procedures. If it is a good design, it will ensure that the information obtained is relevant to the research questions and that it has been collected by objective and economical procedures" **(Green et al., 2008).**

**Sources of Data Collection**- Both primary and secondary sources of data have been used for the present study.

A. ***Primary Source*:** Primary source of data is original, problem specific and collected for the specific objectives. The authenticity and relevance is reasonably high. For the present study, the primary data are collected through interview schedule and personal interactions.
B. ***Secondary Source:*** It includes the published papers by authors in books and journals, data published by the Government like Census data, data of planning Commission etc.

**Methods of Data Collection**: After determining clearly the research problem and formulation appropriate research design, the process of data collection began. For the present study, both qualitative and quantitative methods of data collection have been used.

**a)** ***Qualitative Method-*** Chawala, D. and Sondhi, N. (2011) have mentioned that qualitative research is used to explore, describe or understand a certain phenomenon. It is loosely structured and open to interpretations. For the present study qualitative research is used to elicit information which cannot be deduced from the interview schedule. Qualitative research differs from quantitative research in several ways. Most obviously, qualitative research tends to be concerned with words rather than numbers, but three further features were noteworthy: Firstly, an inductive view of the relationship between theory and research, whereby the former is generated out of the later. Secondly, an epistemological position described as interpretive, meaning that in contrast to the adoption of a natural scientific model in quantitative research, the stress is on the understanding of the social world through an examination of the interpretation of that world by its participant. Thirdly, an ontological position described as constructionist, which implies that social properties are outcomes of the interactions between individuals, rather than the phenomenon "out there" and separate from those involved in its construction.

This predilection for seeing through the eyes of the people studied in the course of qualitative research is often accompanied by the closely related goal of seeking to probe beneath surface appearances. After all, by taking the position of the people one is studying, the prospect is raised that he/she might view things differently from what an outsider with little direct contact might have expected. The empathetic stance of seeking to see through the eyes of one's research participants is very much in tune with interpretivism and demonstrates well the epistemological links with phenomenology, symbolic interactionism and Verstehen. However, it is not without practical problems. For example, the risk of 'going native' and losing sight of what the researcher is studying; the problem of how far the researcher should go, which could be a risk in research and the possibility that the researcher will be see through the eyes of only some

of the people who form part of a social scene but not others. In spite of these difficulties the present researcher has tried not to get out of focus. The attempt was always to represent the field accurately.

Qualitative researchers are much more inclined than quantitative researchers to provide a great deal of descriptive detail when reporting the fruits of their research. This is not to say that they are exclusively concerned with description. They are concerned with explanation.

**b)** ***Quantitative Method-*** Quantitative research predicts the occurrence of a certain phenomenon. It is formatted and structured and usually conclusive. It has a measurable set of variables with a presumption about testing them. Interpretation of data entails various levels of statistical testing. For the present study, the primary data has been collected through an interview schedule.

**Tools for Data Collection:** Interview Schedule was utilized to gather the primary data. Further, the data was arranged, analysed and presented to generate meaningful outcomes and conclusion. The interview schedule involves open and closed ended questions, ranking item questions and multiple-choice questions.

***Interview-***The interview is the implement par excellence of the field worker; particularly in an underdeveloped country both because of the types of problems tackled and the environment from which data are to be collected. Interview is a conversation with a purpose. It is more than a mere oral exchange of information. Its importance arises from the necessity to come into contact with individuals to get access to facts and opinions and to receive facts directly from persons. Where the source is accessible to the investigator, the interview is the device to tap it. Apart from accessibility, the controlling factor in the success of the interview is the reaction of the personalities involved namely the investigator and the respondent.

There are three necessary conditions for a successful interview: First is the 'accessibility' of the required information to the respondent; the second condition is that of 'cognition' or understanding by the respondent of what is required of him. Third

condition is ‘motivation’ on the part of the respondent to answer the questions accurately.

***Asking Questions in a proper way***- It was earlier suggested that one of the ends of the structured interview is to ensure that each respondent is asked exactly the same questions. The structured interview is meant to potential errors due to variation in the ways a question is asked. Consequently, it is important for interviewers to appreciate the importance of keeping exactly to the wording of the questions they are charged with asking. The present researcher has tried to follow it as far as applicable. The key point to emerge, then, is the importance of getting across to interviewers the importance of asking questions as they are written. There are many reasons why interviewers may vary question wordings, such as reluctance to ask certain questions, perhaps because of embarrassment, but the general admonition to keep the wording of the question needs to be constantly reinforced. The present researcher has tried to keep this point in mind.

***Writing Answers-***The respondent’s replies should be written down as exactly as possible. If it is not done, then respondent’s answers may be distorted and hence errors may be introduced. Such errors are less likely to occur when the interviewer has merely to allocate respondents’ replies to a category as in a closed question. This process requires certain amount of interpretation on part of the interviewer, but the error that is introduced is far less than to answer open questions are being written down. Hence, the present researcher has tried mostly close ended questions to avoid errors. However, few are open ended questions where necessary precautions are taken.

***Audio and Photography Technique***- With the advancement in the field of science and technology audio and video recording along with photography has been done in order to represent the field correctly. Photography and video recording has helped to capture the numerous moments of the respondent’s lifestyle under a single frame which has helped to conduct the research work accurately.

**Analysis of Data:** Keeping in mind the objectives of the research, the collected primary data was processed and analysed. The different phases of data analysis are discussed below.

**Data Editing**- In order to eliminate the errors and mistakes in the collected data, editing of data is necessary. For this a careful screening of completed interview schedule was done. It ensures the accuracy, consistency and relevance of the data collected.

**Coding of the Data-**The objective of data coding is assigning numeric values to the responses collected through the schedule and doing proper categorization and classification of the same. Coding is a key stage in quantitative research. It entails two main stages: first, the unstructured material must be categorized. For example, with answers to an open question, this means that the researcher must examine people's answers and group them into different categories. Secondly, the researcher must assign numbers to the categories that have been created. This is a largely arbitrary process, in the sense that the numbers themselves are simply tags that will allow the material to be processed quantitatively. The present researcher has used the method of coding to analyse the data.

There is an important distinction between pre-coding and post-coding. Many closed questions in survey research instruments are pre coded. This means that respondents are being asked to assign themselves to a category which has already had a number assigned to it. Post coding occurs when answers to an open question are being coded. When coding, three basic principles need to be observed. Firstly, the categories that are generated must not overlap. If they do, the numbers that are assigned to them cannot be applied to distinct categories. Secondly, the list of categories must be complete and therefore cover all possibilities as far as possible. Quantitative data are also sometimes recoded. For example, if we have data on the exact age of each person in a sample, we may want to group people into age bands. The present researcher has used the method of recording in order to group people into age bands, income bands, educational bands and others.

The researcher is concerned to use a number of techniques of quantitative data analysis to reduce the amount to use a number of techniques of quantitative data analysis, to reduce the amount of data collected, to test for relationship between variables, to develop ways of presenting the results of the analysis to others, and so on. The present researcher has constructed univariate and bivariate tables. In a bivariate table, two

variables are cross-classified. Such a table consists of rows and columns; the categories of one variable are labels for the rows, and the categories of the second variable are labels for the columns.

The research can now be written up. In writing up the findings and conclusions, the researcher is doing more than simply relaying what has been found about others; readers may be convinced that the research conclusions are important and the findings are robust. Thus, a significant part of the research process entails convincing others of the significance and validity of one's findings. The present researcher has tried to give a complete detail of the field and respondents studied, so that the research work is based upon accuracy.

**Classification of Data**- In order to find meaningful relations of the data, it is necessary to put them under homogeneous group and develop proper classes. Data with similar features need to be arranged under one group or class.

**Tabulation of the Data-** For the purpose of research a vast volume of data is collected. For representing the data in a systematic manner, tabulation was done. Tabulation makes it easy to understand the various parameters of research.

**Ethical Issues in the research work-**The present researcher has performed her works based on primary data collection which was not touched before this work. In this regard, data which have been generated are original in nature and field based. So, ethically the research work has been done from the empirical point of view and issues.

The present work has been conducted with immense care so that the research is accurate. A lot of care has been taken to represent the field as accurately as possible.

# CHAPTER – 5
# RESULT DISCUSSION AND ANALYSIS

# Data Analysis

***The use of indigenous/ traditional medicines in treatment of snake bite among the tribes in Bankura district of West Bengal.***

Snake venom is modified saliva produced by special type of glands. The toxin is usually situated on each side of the head, below and behind the eye and invested in a mascular sheath. It is large, alveoli in which the venom is stored before being conveyed by a duct to the base of a tabular fang through which it is ejected. Snake venom is a combination of protein and enzymes. These proteins are harmless to human beings when they are ingested and becomes toxic when it comes in contact with the blood of the prey. The tribes are the aboriginal people residing in the lap of nature. They are dependent on forest and are victims of snake bites regularly. The tribes of Bankura district are not exceptional. After snake bite, the victim is brought to the Janguru or Ojha for treatment. Ojha examines condition of victim and starts treatment by finding out the condition, if victim's condition deteriorates then the Ojha stops treatment and refers him to Tantrik or Gunin, the tribal priest for further treatment purely based on magico-religious process in which witchcraft is found to be practised.

Tribal doctors have inherited their knowledge from their ancestors and enriched their knowledge bank through trial and error methods. In treatment process, the Ojha first identifies whether snake bite is poisonous or not, by observing the biting site. If the biting bears two sharp deep insertion mark at equal distance or swelling of biting site may possess more than two biting impressions, then they conclude either the snake is non-venomous or the snake is unable to bite. The medicine man tries confirm identity of the snake by discussing with the victim or eye witness. After confirmation of identity of the snake being poisonous, the Ojha begins his treatment with a sharp incision between two biting marks with a sharp blade or a knife and allow the cut end to bleed out for a few seconds. Then he places his mouth on the wound and sucks the blood by the continuing the process 5-6 times more more. Then he stops the bleeding, cleans the wound and initiate the treatment process with the help of medicines mostly of vegetable origin.

The indigenous medicine named Bombax Ceiba Linnaeus, vernacular name shimool or silk cotton tree is used. Fresh young shoots are pasted with black pepper seeds and a pinch of camphor. The paste obtained is applied after mixing with a spoonful of honey as an antidote of snake venom by Santals. A single dose of medicine is enough. Another indigenous medicine named Kherkora is found more or less throughout the year in wild conditions. The stem bark of kherrora is mixed with a little gur and a pinch of salt and the decoction is applied as an antidote to snake bite. The root of Shingi plant found as a climber on shrubs, act as an antidote to snake bite and can be applied both internally andexternally.

***Marang Buru act as a remedy against ailment among the traditional folklore of tribes.***

The Santals believe in balance and equilibrium between the world of men and spirits. They believe in some supernatural beings that control destiny. The benevolent deities among the Santals are Maranj Buru, Jaher Era, Moreko-Turuiko and Sima Bonga. Marang Buru is propitiated for good agricultural products and trouble-free harvesting. Maran Buru gives life to people for a definite time. Marang Buru is propitiated on several occasions otherwise he would cause destruction. Villagers believe the supernatural beings are hungry, thirsty, angry, discontent; thus, sacrifices are offered to them so that they do not ruin health and happiness of the people. Marang Buru is worshiped by Santals as the Supreme source of power and he doesn't possess any shape, face, idol. Marang Buru is worshiped in the shape of nature. It should not be considered as 'God' or 'Goddess'. In reality, nature is believed to be 'Marang Buru' who gives them everything like rain, water, air, land, forest, river and everything that is present in nature and the Santals benefit from these things in their life.

The literal meaning of Marang Buru is *'The Great Mountain'*. Marang Buru means 'Big' or 'Great' and Buru means 'mountain'.The early missionaries to the Santals, armed with medieval Christian theology, did identify Satan with the Marang Buru or Bonga of the Santals. The Santali term Bonga is a generic term and connotes an invisible supernatural spiritual force/power. The term Bonga in itself does not connote anything good or bad unless preceded by a qualifying adjective. The term

may be considered equivalent to the English word 'spirit' which also is specified by an adjective preceding it either to connote good or evil. The Marang Buru Bonga is one of the revered national Bongas of the Santals. In short, he is only called Marang Buru.

In context of the Santals, Dhiri, Nadi, Hoy, Hasa, Sengel, Da (Rock,Vine, Air, Land, Fire and Water) or say the whole nature is Marang Buru. The Santals feels and experiences the Marang Buru(nature) as a real friend of all and Marang Buru helps them in their trouble and bless their hard work. The Santals suffered a lot through drought, famine, epidemics and socio-economic oppression and even poverty. Like when nature causes disasters, such type of calamities are believed to be the signs of Marang Buru's(Nature's) displeasure. But at the same time the Santals have experienced God's merciful acts recorded in the mythology of the Santal. As nature is the greatest strength whose origins are unclear like the world and thus can be considered as the supernatural power who has control on everything, who is nature and who created the human and everything that we see in on Earth. In this way the philosophy of worshipping nature by the Santals is practical and realistic. Their religious philosophy and belief is connected to the river which helps them in cultivation. They worship mountains and forests which give them wood and other resource. They worship 'SUN' who gives light and energy and thus they call it 'Sin Bonga' (Sin in Santali means 'Day' or 'Light' or 'Sun' and Bonga means God). In any sort of religious philosophy, folk song, folklore, folk dance, community living or any social rituals, the presence of nature is found in them.

***Music as a therapy helps as a pain relief in different diseases.***

Music is a universal way of communication and means of expression of feelings for mankind. Evolutionary biologists consider music as a binding force between individual members of society and existence predated speech and language. Music plays a great bonding power and role in creating society and civilization from each individual member. Music works as a form of leisure and relaxation and was used for recreational purposes.Pain modulating effect of music results as a prime cause of suffering in pain and agony at levels of mental and physical states.

Music influences pain sensation through various proposed mechanism. There is a Descending Pain Modulating System (DPMS) in the body which inhibits and modulates pain sensation arising from various body parts. The DPMS acts on pain afferents and decrease pain perception. It suggests an analgesic effect of music aroused in the brain and acts through top-down regulation through DPMS. Stress is a predisposing factor in chronic pains and amelioration of stress influencing pain positively. The analgesic effect of music therapy was ascribed to the distraction caused by a music stimulus supported by the framework theory. Music arouses emotions that have an impact on affect and cognitive functions accounting improved mood, decreased anxiety and increased control and distraction potentially reducing pain.

Music therapy defined as "controlled method for listening to music, making use of its physiological, psychological and emotional impact on individual during treatment for an illness or trauma". Music therapy is an effective and reliable source of treatment helps patients in reduction of pain, anxiety, anguish without need for medication. Music is a form of behaviour therapy and non-pharmacological intervention reconfiguring the individual to anticipate, perceive and respond to pain. Music as a modality can stimulate synesthesia- a neurological phenomenon in which is stimulation of sensory or cognitive modality causes an automatic, involuntary experiences in second sensory or cognitive pathway. Villagers listen to well-liked pleasant music enhancing neuronal functional connectivity, influencing valence and reward characteristics of multimodal sensory processing in patients suffering chronic pain.

Music intervention is an effective tool in managing chronic pain in medical conditions like lumber pain, fibromyalgia, inflammatory diseases or neurological disorder. It has huge impact on pain reduction and associated anxiety and depression leading to significant reduction in requirement of analgesic medications. Music intervention reduces post operative pain and anxiety in patients undergoing biopsy procedures. Music listening leads to expression of nitric oxide, opiate, cytokine and hormone expression in listeners. Engagement in neurochemical systems, can drive subjects to state of calmness and relaxation.

***Dance as a way of medical treatment.***

Folk dance of the tribals is basic expression of early joy and zest for life. Dances performed by tribals with vigorous, colourful and stimulating feathers, presents an amazing melody of music, rhythm and folklore. It is not only for the entertainment of tribal folks but also an important part of life. It is reflected in their struggle for existence, their attitude towards nature and child-like sense of wonder as the symbols change. The tribals believe that their sacred dances were taught by their gods as a sacred origin of dance. As they live close to nature and depend on it for their sustenance they believe in worship of evil spirits and supernatural powers. Dance is a means of response to supernatural power; dance was considered as a sacred act and also means of obtaining food and some tribal dances have a series of charming dances performed to enliven life.

The sacred dance is common among tribals. The objects are centred around an idol, an altar, a sacrificial victim, a holy water or well. The usual ritual for making crops grow is a sacred dance around a tree. The propitiation of a sacred tree is believed to be potent means for securing an end. Some dances among the forest tribals are ritualistically devised for propitiation of hill gods and ancestor spirits. The gods held in reverence, range from stones, trees, crests of hills etc. to certain gods like Kali, Shiva etc. Social dance plays a valuable role in folk dances. The Tadi festival of Santals is full of dance and merry-making. Marriage dances are common among Santal tribes, like sword dance during weddings is a relic of ancient custom of marriage. Apart from dancing in festive mood, tribals also perform it during funerals. Mourners dance round the corpse to music of some bands removing their turbans as a mark of respect during the first three circles. Most of the male dancers are dressed in gaudy petticoats and smart turbans.

***The restriction placed on the environment of the tribals for their proper utilization and conservation through religious myths.***

Tribals follows folklore as a method of conservation of religious myths. Folklore as a part of literature plays a substantial role in environmental concerns and attitudes and plays an outstanding role in ecological conservation practices. Environmental communicators acknowledged importance of the supremacy of using folklore and conventional belief, songs, tales, drama, puppetry and proverbs

to communicate environmental messages to people.The tribals follow the means of environmental conservation through folkloric beliefs and through application of taboos. They consider that for the purpose of preserving the traditional plants and endangered animals that are popularly practised among them. Folkloric beliefs regard plants and animals as embodiments of gods and ought not to be incapacitated. Such flora and fauna are neither touched or hunted by tribals nor badly spoken off. Unlike these, the folks' beliefs are relevant to forests, woodlands and water along with natural resources. Cutting of plants, harvest of fruits or plucking flowers would cause offence to divinities and bring catastrophe to the residents. Veneration may stimulate the sensation of protecting natural resources for the benefit of future generation and help in maintaining environmental balance.

The traditional uses of plants have declined due to scarcity of species that is caused by human activities and over grazing by animals. Thus, it is quite essential to focus on conservation of these plants for tribal population and have good knowledge about the use of many plants. All afflictions are caused by supernatural forces. Traditional healers use their eyes, nose, hands to diagnose diseases as they live in interior areas that lack the use of modern scientific equipments for treatment. Traditional ecological knowledge is significant from conservation perspective. Tribal communities play a major role in preservation and management of natural resources with their indigenous knowledge.

***The role of medicinal plants in scientific manner by tribes of West Bengal.***

Traditional system of medicine is practised among rural ethnic groups and tribals. Medicinal plants play a vital role in the primary healthcare among tribal communities of West Bengal. Traditional wisdom and knowledge restore cultural heritage establishing the identity of a group in their society. Traditional medicine is based on folk education system, philosophical thought and cultural origins of society. It is derived from local medicinal plants, minerals, different types of organic matter and spiritual belief. Traditional knowledge is based on practical experience of the common people and deeply rooted in the life of tribal people. Most of the tribal communities are dependent on local traditional healing systems for primary health care.

Traditional knowledge implies that tribals in rural areas are isolated from rest of the world and that their knowledge systems are static and to no interact with other knowledge systems. Marginalized tribal people depend on herbal remedies and folk treatment.The ethno-medicinal plants are used by tribes in curing diseases of orthopaedic, dermatology, respiratory, fever, skin diseases, allergies, headache, diarrhoea, eye diseases, blood and other health problems.

The Santals depend on traditional medical practices for treatment. Not only the Santals, tribes like Mundas, Lodhas, Mahali use various parts of plants like whole plant, leaves, roots, stems, barks, flowers, fruits, seeds, rhizomes and wood. Applications of these plants were either topical or oral of some specific formulations. The latex of Jatropha Curcuslocally known as Berenda is used to treat bleeding gums. The medicinal attributes of many plants and leaves are used as alternative, tonic diuretic and blood purifiers. Medicinal plants vary in their effectiveness of curing diseases. Brahmi is used to reduce fatigue and depression and to stimulate sex drive. Men and women use traditional common plants for curing their health problems. Tribal societies conserve nature due to less interaction with the modern world as groups of people live in regions that have less interaction with the modern world.

Among the Santals uses of parts of some plants are common and regular in various diseases. Some of them are:

| **Name of tree** | **Parts of tree** | **Name of diseases** |
|---|---|---|
| Saal | Leaf | Anaemia |
| Guava | Leaf | Diarrhoea, Headache |
| Palash | Bark, Leaves | Diarrhoea |
| Akando | Root, Leaves, Latex | Dog bite, tooth pain |
| Dutura | Roots, Leaf | Dog bite, asthma |
| Kalmegh | Root, leaf | Snake bite |
| Nim | Leaf, seed | Skin disease |
| Krishnachura | Root, Bark | Fever |
| Basak | Leaf | Cold and cough |

Indigenous traditional knowledge is an integral part of culture and history of the local community. It has evolved through years of experience and is passed on orally from generations to generations. It is based on availability of natural resources surrounded in their community and its proper usage. Traditional beliefs, knowledge and concepts help in preventing and curing diseases through daily practice.

***The use of traditional medicines for medical treatment is regarded as the most sacred science of life.***

Traditional medicines are sacred due to sacred groves used for medical treatment. Sacred groves have been defined as a patch of religious forest rich in biodiversity and are conserved by local people on the basis of cultural and religious beliefs and taboos. Sacred groves are long and diverse in human cultures and have an ancient link between men and environment. Plants play a vital role in human welfare and continue to be valued as industrial, economic, commercial and medicinal resources. Sacred plant species are richest sources of drugs of traditional systems of medicine and modern medicines, as they are rich in secondary metabolites and oils which are of therapeutic importance. They are useful because of their low cost, efficacy and availability throughout the world. Sacred groves which are repositories and nurseries of local Ayurvedic, Unani, tribal and other folk medicines are original sources that have slowly entered into modern medicines.

There are 36 ethno-medicinal plants used by the tribal communities of the district of Purulia of West Bengal for the treatment of intestinal disorders, malaria infections and sexual diseases. The ethno-medicinal traditions reflect a prominent role in human and environment interaction including medicinal herbs.

| **Name of tree** | **Parts used** | **Medicinal uses** |
|---|---|---|
| Neem | Leaf, bark, seed | Bark is used to cure malaria fever. Seed oil is used to cure skin diseases and lice. Leaf -paste in cure mumps. Water decoction of leaves is administered and applied to cure skin infection. |

| | | |
|---|---|---|
| Vata | Leaf | Infusion of bark used in diabetes, dysentery and in seminal weakness. |
| JaggyaDumur | Seed pulp | Diabetes, piles |
| Aswatha | Latex, fruits, root and bark | Bark is used as antiseptic, astringent and laxative. Bark is used for diabetes, diarrhoea and leukoderma. Dried and pulverized fruits are taken for curing asthma. Latex is good for inflammation, blood dysentery & haemorrhages. Aerial roots are given to women for inducing conception. |
| Banana | Fruits and stem | Fruits control diabetes. Inflorescence stalks and juices are used for lowering high blood pressure. |
| Marigold | Leaf | Leaves used for curing skin boils and ulcers. |
| Pan | Leaf | The juice of whole plant is applied as eye drop to cure painful eyes due to conjunctivitis. Leaf juice is given to cure indigestion, killing. |
| Bel | Stem, bark, leaf fruit and seed | Used as laxative, diuretic, digestive. The seeds of the fruit is dried and powdered and used as an anastigmatic to cure diarrhoea while the fruits pulp is used to cure stomach ache. Leaves chewed every morning help in healing stomach ulcer and also reduce glucose in diabetes patient. |
| Palash | Leaf | Fresh leaf juice is used as aphrodisiac, enhances sperm count and treatment of diarrhoea. Dried bark is used as an appetizer and tonic. Bark is soaked in water overnight and |

| | | |
|---|---|---|
| | | consumed in the morning to treat diabetes. |
| Bantulsi | Leaf | Used in skin diseases. |
| Tulsi | Leaf | Used to treat common cold, asthma, bronchitis and fever. |
| Krishna Tulsi | Leaf | Fresh leaf decoction is taken twice daily for curing tuberculosis. |
| Kadam | Leaf, stem, bark | Used as febrifuge, astringent. It cures dyspepsia. Bark decoction is consumed orally to cure fever, diarrhoea and vomiting. |
| Haldi | Rhizome | Rhizome powder with boiled milk is taken at bed time during cough, cold and used for healing injuries. |
| Durva | Whole plants | Washed leaves paste is applied on cuts it helps in quick healing and its decoction is consumed orally in empty stomach early in the morning to control blood pressure. The juice is consumed daily to prevent bleeding during menstruation. |
| Arjuna | Bark | Bark is used as : cardio tonic, cardio protective and expectorant. Bark in pasty form is externally used to cure different skin diseases, herpes, leukoderma. |
| Seuli | Leaf | Leave's juice is used for treatment of rheumatism, malaria, bilious fever, cold and cough. |
| Ashok | Bark, seed | Urinary problems, worms. |
| Krishna Chura | Root | Root decoction is used for intermittent fevers. |
| Radha Chura | Bark | Stem bark is used to cure dysentery. |

| | | |
|---|---|---|
| Nayantara | Leaf, root, buds | Leaf extraction is useful in treating diabetes and hypertension. Root extraction contains two alkaloids acting as an anti -cancerous agent. |
| Aparajita | Root | Root is administered with honey as a general tonic for children to improve mental faculty. Root bark is used as diuretic. |
| Mahua | Seed, bark | Oil is obtained from seed used as laxative. Bark is used as an astringent and also used to cure inflammation. |
| Sal | Root, stem, bark | Stem and bark juice is given to cure mouth ulceration. Root extraction is given to cure bleeding piles. |
| Akanda | Root, leaf | Indigestion, gastric troubles, body pain. |
| Joba | Flower | Cough, genitourinary weakness. |
| Manasa | Leaf, stem | Juice of leaf is used as kajal for treatment of eye infection and treating cough and cold. |
| Sarpagandha | Root, leaf | Root extracted is given to reduce blood pressure and hypertension. Leaf juice is applied in eye infection. |
| Dhutura | Leaf | Leaf decoction is given daily to cure amenorrhea. |
| Lotus | Seed, rhizome, flowers | Seed is used as a spleen tonic. Rhizome is used as diuretic and anti-diabetic. Flower extract is used to cure hypertension and weakness. |

To cure diseases, local traditional healers use leaves commonly followed by bark, seed, roots tuber, latex and whole plant. Plants are used for healing of wound, throat infection, diarrhoea, hypertension, diabetes, piles, asthma, cold, sexual

diseases, skin diseases, stomach ulcer, tumor, conjunctivitis and tuberculosis. Akanda is used for treating nervous diseases and Nayantara used for anticancer properties. Ingredients are extracted such as oil, milk, ghee, common salt and honey are applied externally in the form of infusion, decoction, paste or powder. Most medicinal plants are used directly or mixed with ingredients.

***The role of folk medicine as part of rural life.***

Folklore as part of literature plays a substantial role in environmental concerns and attitudes and has a function in ecological conservation practices. Environmental communicators have acknowledged the importance and supremacy of using folklore and conventional beliefs like songs, tales, drama, puppetry and proverbs to communicate environmental messages to the people. Folklore and environment are integrally related. Folkloric tales, legends, myths, songs, ballads, dances, music and poetry are significantly illuminating man-nature relationship. Folktales are used as a purpose of understanding the religious perspective of the environment.

Significant ecological component helps in environmental conservation of plants and trees. Plants and trees are believed as the first home of deities and sacred groves are considered as the first place of worship. Both were held in utmost reverence in ancient times. Sacred groves are scattered all over the country enjoying the benefit of conservation. It is believed that Malay folklore narrates that plants whisper hymns to God in absolution of precedent transgression of the soil's human population. Tribals realised the benefits of locally obtained herbs and other natural resources. They began to preserve those as precious possessions. Value is attributed to folk beliefs and conservation, rather than demolition of ecology will initiate. Asian cultures consider the bamboo as the most propitious rudiment. It stands out as stability, harmony, industriousness and flexibility. The ubiquitous belief is that any harm done to the sacred tree causes divine vengeance. This fortification of this tree is desirable Punishment is acknowledged as a means of protection of woodland resources from over-exploitation.

Water as a ecological ingredient plays a prominent role in folklore, fairy tales, myths and legends throughout world. Primitive people held high regard for water resource and created myths and legends connected with water spirits. Holiness of

water can be traced in written literature. Water is an indispensable component of nourishment of life. The people must give due importance to water resources and measures ought to be adopted to protect this from pollution. Folk medicine helps to examine an inherent relationship between human and natural world by exploring the interaction between human culture and nature in folklore. Nature consciousness carries out a sense of accountability towards mother earth. Thus, folk medicine plays a vital role in transforming people's attitude from anthropocentric to eco or bio centric. Environment education can initiate new and positive approach.

***The factors that affect the health of any tribal community.***

Health of the tribal community is affected by two factors: Socio-economic factors and cultural factors influence tribal health. Tribal communities explore that income is the strongest and most robust predictor of health. It has been found that the awareness of family planning among santal community area increase with better education and occupational status between groups. Acquaintance with modern contraceptive methods found to be universal among both studied groups and the situation has improved among non-Santals. Educating and motivating the Santal mothers towards utility of family planning methods and improvement of health condition is essential Socio-economic factors like low literacy levels, poor economic conditions and lack of knowledge about general health are responsible for it. Migration is a socio-economic factor. Tribals migrate to big cities for jobs when they carry back with them health hazards within their community. Education, occupation, house types are significant variables among Santali tribe that contribute to better health status of tribes than others.

Santals belong to a well knitted organisation followed by different religious practices. They use modern medicine. There is co-existence of beliefs in supernatural powers that influence them to deviate. Santals lack awareness and experience more interpersonal communication. Health status of tribal community depends on dynamic factors like socio-cultural, demographic, economic, educational and political. Interplay of these factors determines health status of the community. Life style indicators like age, marital status and place of residence are more responsible for acquiring lifestyle related diseases among tribes as compared to the general population. Among the Santals of Birbhum district, West Bengal,

excess salt intake, changed food habits, alcohol and tobacco intake has increased the risk of hypertension.

Among the Santals, the breastfeeding practices are uniform. Deep rooted prejudice is noticed against colostrum, (thick, yellow milk secreted in the first few days after birth of child). Non-Santal mothers exhibit better feeding practices than Santal mothers. Health care practices among the tribals are not only related to biological understanding, but also influenced by age-old observations and cultural approach. Three crucial factors like place of delivery, polio vaccination and availing services under Integrated Child Development Services (ICDS) influence child health. The educational level is poor among the Santals in Birbhum district. Education provides knowledge and skills that empower people economically and socially, and lack of access to education can deepen poverty, widen inequity and take away the opportunity to live. Education plays a vital role in the lack of awareness about good health.

Besides lack of educational level and financial strength of family, another negative attitude is gender discrimination. However, the decreasing nature of sex discrimination is a positive indication towards the improvement of overall community health. This positive indication is a result of vibrant participation of women in economic activities among the Santal community. Women receive inferior treatment and unequal access to health care. Lack of awareness on about the necessity of safe sanitary disposal and absence of sanitary latrine facilities have increased the vulnerability towards poor health among the women population of Santals. None of the villagers have proper drainage and sewage management systems at times. Waterlogging in the rainy season intensifies vector borne diseases in the community. Women and children suffer a lot. Various government and non-government institutions have taken different initiatives to promote safe sanitary disposal habits among Santals under the scheme ‘Mission Nirmal Bangla’.

Living patterns influence health. Santals live in lineage pattern where houses are built on two sides of the main road and boundaries overlap with each other. Communicable diseases like skin diseases, tuberculosis, cough and cold spread rapidly in their pattern of living due to the close contact among families. In a

scattered pattern of living, risk of spreading communicable diseases is much less due to the distance from family to family.

Food habits, addiction, beliefs in supernatural powers and practices of medicine are common among Santals. The Santal population consumes less nutritious diet at a regular basis. Carbohydrate is the major content in every meal. Consumption of rice beer is common among Santals; as it contains a good percentage of alcohol, over consumption of alcohol leads to negative consequences on health. Environmental condition, availability of health services, characteristics of population and socio-economic conditions are other factors affecting their health status.

***Highlight on the relationship between forest and tribal health.***

In India, the tribals are considered as weak, marginalized and the deprived section of the society. They are deprived from natural resources. Ttribal economy depends on forest products which they collect for their livelihood. Use of forest products by tribals led to the extinction of thousands of natural flora and fauna. In West Bengal, forests have been the bone of contention between the forest department and forest dwellers, who are mostly tribals. The forest dwellers, being native have the right to utilize forest products for their livelihood and medical treatment.

Joint Forest Management (JFM) provides the opportunity for managing forest resources for better productivity and availability of forest produces. Forests provide physical products as wood, food, medicine, fuel, fodder, fibre, organic fertilizers and indirect and attributable benefits for environmental enrichment. Inseparable component of total land use systems, forestry has interrelationship with agricultural, pastoral and food producing systems. Through soil and water conservation, maintenance of soil fertility; forests provide support for agricultural development. Forest-based cost-effective enterprises help to increase rural employment and raise the income and living standards of rural people including forest dwellers and indigenous groups. Quality of life in rural areas depend on rehabilitation of the forest.

The Forest Right Act, 2006 aims to strengthen local self-governing powers. Another objective of the act is to consider the issues relating to conservation and management of natural resources in India. The Act emphasises on the poverty problem along with the livelihood security of tribal people. Development activities have been initiated by the government to protect and promote tribal people who stayed in darkness for many years. The Forest Conservation act 1980 restricts encroachment of tribal people in forest areas all over India. Tribals live in forest ecology and have shaped their life around it. Dwelling amidst hills, dense forest and coastal areas, the tribals have gained precious and vast experience in combating environmental hardships and leading sustainable livelihood. Their techniques of water harvesting, indigenously developed irrigation channels, construction of cane bridges, adaptation to desert life, utilization of forest species like herbs, shrubs for medicinal need etc. are remarkable.

The rehabilitated areas are unable to collect food and medicinal plants to use in the health care system. They live in unhygienic micro environmental conditions and suffer from severe gastrointestinal problems compounded by excessive alcohol intake and malnutrition. High range of diseases like tuberculosis, diarrhoea, intestinal parasite infection, skin diseases and sexually transmitted diseases are common. Females are the vulnerable group due to a very high workload and severe abuse by their partners.

Thus, medicinal plants and non-timber plants are the main traditional resources to used by them to survive. Deforestation, soil erosion, pollution, disaster management, human ecology, bio diversity and man-animal animal conflict need to be under control for the maintenance and sustenance of production of medicine from medicinal plants for the tribal population.

***The role of nature and religion on social life.***

Totemism is an aspect of religious belief centred upon veneration of sacred objects called totems. Anthropologists look at totemism as a recurring way of conceptualizing relationships between kinship groups and the natural world. Tribal groups in middle and south India believe in some plants and animals that are sacred to them. Santals consider totems: namely Murmu, a forest based wild cow;

Chande, a lizard and Boyar, a fish. The Koras of Santal Parganas consider the totem of Barda tree. The clan members of particular totem refrain from killing, eating or destroying the totemic objects, living and non-living objects conserve some elements of the environment. Some trees are considered sacred and worshipped in two forms; worship of tree in natural form and some in spirit form. Such trees are available throughout the habitat. The Sal tree is worshipped by the tribal people of Eastern India and is associated with festivities. Sacred grove of Santal community is called Jaher than has Sarjam (Sal) and Matkom (Mohua) where most religious worships take place. Udbaru, Lojo, Bari and Kajur are minor forest plants and creepers found locally. The Kharias also conserve totem objects and do not injure or eat them.

A significant tradition of nature worship is of providing protection to patches of forests dedicated to deities or ancestral spirits. Sacred groves consist of multi specie, multiple primary forests or clump of trees depending on the history of vegetation. These groves are protected by local communities through customary taboos and sanctions with cultural and ecological implications. Sacred groves are segments of landscape, containing vegetation and other forms of life and geographical features delimited and protected by human societies under belief to keep undisturbed. A sacred grove helps to maintain forest cover and is a haven for many species both flora and fauna and maintains religious importance regarding tribal culture.

Sacred groves hold water resources in forms of springs, ponds, lakes, streams or rivers. Vegetation mass of grove retains water, soaking it like sponge during wet periods and releasing the water slowly in times of drought. Ecological role of groves provides a more dependable source of water for organisms living around sacred groves. Ponds and streams adjoining groves are perennial; water sources have been kept clean and protected by adhering to taboos.

Species of plants protected in groves also offer protection to birds and animals. Teak, lemon, ginger, eucalyptus and bamboo are among these. Fishes, waterfowl, aquatic animals like snails and insects are common items in the diet of Meitei. Many of these animals are not consumed during certain periods, with a motive of

sustainable harvesting and conservation. Sacred groves are sources of medicinal plants, fruits, fodder, fuel, wood and spices and provide an interrelationship between human beings, plants and animals in the surrounding environment.

Sacred forests are great forestry interest and indicators of natural productivity of the region. Ecologically valuable species like Albizia, lebbeck and Ficus glomerata conserve high amount of nitrogen, phosphorous, magnesium and calcium through in leaves. Species that contribute to the maintenance and enhancement of biodiversity are species socially valued by local communities of the cultural and religious regions found in sacred groves.

***Explain how the concept of health, disease, treatment and death among the tribes vary as their culture.***

The status of tribal health in India is poor and is affected by widespread poverty, illiteracy, malnutrition, absence of safe drinking water and sanitary living conditions, poor maternal and child health services, ineffective coverage of national health and nutritional services which make for dismal conditions prevailing among vulnerable populations. In India, tribals differ from each other in aspects like they speak, cultural practices and traditions, socio-economic categories. Tribal health is related to culture, environment and social structure can be observed from cultural and medical system in their classification of diseases and its aetiology making health, disease and medicine as inseparably linked with social relationship and magico-religious world. Health in tribal society is not a phenomenon in isolation but in relation to magico-religious fabric of existence. Tribal communities consider health, medical care and aetiology of disease in relation to social context. Universality of perception of disease at individual, family and society level among tribes is interpretation of breach of trust by commission or omission of act which displease spirits or disease-causing agent. Such perceptions are revealed in rituals they performed by burning incense sticks, ghee and offering liquor and meat to propitiate spirits or disease-causing agents that have been displeased by omission or commission by some act by an individual or people. Diseases like measles, chicken pox, unsafe delivery, snake bite, fever, typhoid, malaria, pneumonia, tetanus, fits are believed to be caused by evil spirits and curse of gods.

Health culture of community is referred to as cultural factors influencing health a community, cultural meaning of health problems, diffusion of health practices from outside, cultural innovations by current generations to deal more effectively with health problems and overall health related behaviour of community. Tribal health is in relation with social, cultural and economic system; geophysical environment, religious beliefs and practices of people. These practices influence health seeking behaviour among tribal community making them seek either from traditional or modern systems of medicine. There is consistent relationship between factors that influence treatment of disease and availability, accessibility, effectiveness, socio-cultural beliefs, awareness level and attitude of providers. Factors that affect their health are socio-cultural and magico-religious beliefs and traditions. Tribal's though seek medical treatment from traditional medical system are shifting towards modern system of medicine. This is due to availability, accessibility affordability of modern medical system that is provided to people under government-controlled administration and implementation besides education playing major role. Factors like external environment, personal predisposition and perceived morbidity influence health seeking behaviour of individuals.

***Note on how the impact of modern medical system have replaced indigenous belief and practices.***

Every culture irrespective of its simplicity and complexity has its own beliefs and practices concerning diseases and evolves its own system of medicine to treat diseases in its own particular way even when compared to Western system traditional system appear irrational. In the context of scientific development preference is more on to so-called modern scientific innovations assuming that science in present only in western societies. The role of science to help mankind meet various demands, exploiting natural resources without adversely affecting environment. People have developed their own science and technologies based on demands of their particular societies.

The introduction of modern system with replacement of traditional system is that tribal and traditional approaches do not have suggestions for many diseases. Most herbs are unavailable and most of diseases were formerly unknown. Multinational

drug companies, medical lobbies and western media have play major role in disrupting and negating indigenous knowledge systems while on other, exploiting traditional knowledge and resource base to develop new drugs. Research on ethnic pharmacology often proved to be counterproductive to development of advancement of local cultures since objectives has not been to strengthen traditional knowledge and resources but to get information for multinational drug companies. Drug multinationals have been robbing traditional knowledge for their own purposes.

***Parameters of malfunctioning imbalance of forces which leads to disease among the tribes.***

Tribal communities and primitive tribal groups are highly disease prone. The do not have required access to basic health facilities; mostly they are exploited, neglected and highly vulnerable to disease with high degree of malnutrition, morbidity and mortality. Their misery is compounded by poverty, illiteracy, ignorance of causes of diseases, hostile environment, poor sanitation, lack of safe drinking water and blind beliefs. The chief causes of high maternal mortality rate are found to be poor nutritional status, low haemoglobin, unhygienic, and primitive practices for parturition. Average calorie and protein consumption is found below the recommended level for pregnant and lactating women. Some of preventable diseases like tuberculosis, malaria, gastroenteritis, filariasis, measles, tetanus, whooping cough, skin diseases are high among tribal population.

Tribal communities are forest dwellers. Their health system and medical knowledge over ages depend on herbal and psychosomatic lines of treatment. While plants, flowers, seeds, animals and other naturally substances are the major basis of treatment; the practice always had a touch of mysticism, supernatural and magic resulting in specific magico-religious rites. Faith healing has been part of traditional treatment among the tribals. The common beliefs, customs, traditions, values, practices connected with health and disease have been closely associated with treatment of diseases. Among the tribal communities, the wealth of folklore associated with health beliefs. Knowledge of folklore of different socio-cultural systems of tribals have positive impact which could provide the model for appropriate health and sanitary practices in a given eco-system. The health culture of community does not change easily with changes in access of various health

services. It is required to change to health services to conform health culture of tribal communities for optimal utilization of health services. The primary health infrastructure provides first level heath care providers and forms common pathway for implementation of all health and family welfare programs. The health care needs of tribal population are taken care by trained health personnel at primary health care level or by their own traditional indigenous health practitioners at village level. There are variations with regard to education and health status, access and utilization of health services among tribal populations.

Most of tribal habitation is concentrated in far flung areas, forestland, hills and remote villages. Thus, to remove imbalances and provide better health care and family welfare services to schedule tribes, population coverage norms of establishment of rural infrastructure have been relaxed. The health and nutritional problems of vast tribal populations are varied because of bewildering diversity in their socio-economic, cultural and ecological settings. Limited paying capacity or habit of getting treatment always free of cost; comparative inaccessibility of medical care services due to under-developed communication and transport facilities; non-availability of private and governmental doctor as when need arises.The scarcity of trained manpower for health is major problem and obstacle to extension of health services to rural and tribal areas. The qualified health workers do not want to work in rural and tribal areas as of professional, personal and social causes. Managerial skills and controlling power of doctor to coordinate activities and maintenance of infrastructure like vehicles, procurement of equipment, medicines, vaccines are high desirable. Lack of managerial training, financial empowerment and facilities available to doctor to efficiently and effectively monitor and carry out public health duties to rural setting and tribal areas. Frequent transfers and absenteeism of staff, favouritism, corrupt practices hinder smooth functioning of Primary Health Centre which have adverse health effects on tribals.

***Role of elderly parents in their daily lives or society.***

Elderly parents help in perception of diseases formation through discussion with them and family members. Children and adolescent share their medicinal knowledge with their peer groups and playmates what they learn from their elders. Leisure time of elderly are utilised to preach and instruct their children to be good

inhabitants and become sustainable to nature for their future life. The old age parents arrange story telling session among children to harmonise their mind. Parents carry their children in their working places and discuss about nature and daily life courses which are suited for habitat. Explanation of fear and sorrow of children come from their knowledge about supernatural knowledge earned from their elderly; these components help in creating perception about health care problems of children.

After childhood and adolescent, they are busy in livelihood practices to get lower scope for discussion with their fellow people. The time and scope of discussion make them in semi compartmentalised phase. These are the chances of transmission of knowledge through generation to generation. Modern electronic media makes people more isolated and lost chances to preserve their valuable treasure trove about indigenous treatment system. Elderly people play the role of decision maker with type of earned knowledge; though advent of modernity bring hurdle to memorise experiences and knowledge. Opinions of educated persons get importance to other in perceiving the health care information. During treatment, people are capable of making decision for accepting, continuing and maintaining treatment accessories according to their financial capability. Financial capacity of family is important to access treatment facilities. Aged people are with less feasibility for work is paid less attention to make expenditure in treatment process. Patients with marginal economic feasibilities are treated with indigenous treatment system.

***Show how traditional medicine sector is a natural as well as God gifted among the village community.***

Around 7% of the Indian population follow a separate way of cultural life that differs from the rest of the population of India. This small population has been recognized as India is in fact home to one of the largest tribal populations across the planet. From the perspective of civilized society, tribal communities are usually categorized as economically disadvantaged and comparatively less socially advanced. Although the Indian Government since has endeavoured to alleviate the socio-economic conditions of tribals, they remain socially, economically, culturally and educationally impoverished due to their uncommon occupational and

geographical circumstances. Despite this, the tribal Indian group boasts a richness of indigenous culture, folklore and history.

It has been discovered that they have a long history of culture that is uniquely or distinctively their own. This uniqueness in their way of life seems to stem from the fact that they view the forest within which they live as the entire Mother Earth, which has been divinely gifted to them. Their distinctive cultural framework differs from mainstream India wherein spirituality is rooted in the Hindu paradigm. They tend to reside in geographical isolation, mainly in forest areas, which do not commonly coincide with mainstream society. Many of these tribes exhibit collective ownership of the land and forest resources, which facilitates an egalitarian and broadly unstructured social set-up, and also results in a reinforced sense of solidarity. Indigenous people's worldview of societal and cosmological relationships includes a deep understanding of respect for self, other people, and all of nature, especially the land and water. The pivotal element of sustainability and balanced harmonious living, which is embedded in a spiritual relationship to the land. It is through this that indigenous people such as the tribals can support each other with sacred medicines, ceremonies, and the use of other indigenous methods of traditional healing.

Moreover, as is evident in the excerpts, they survive off the land they inhabit, which is handed down from generation to generation. They remain connected not only to their natural land space but believe that there is a Spirit that is present there. These notionsreflect that they live together, as well as the unity surrounding their hamlet structure, their dependence and reverence for the forest, and their sense of deep community connectedness.

The longevity of the social and cultural life of tribals can be attributed to factors such as an enhanced degree of solidarity, greater respect for their own traditions and customs, an emphasis on meanings related to social actions, a devaluated significance of money, and an enhanced sense of camaraderie which is prevalent amongst the community members. This spirituality is heavily influenced by nature and the respect for others within their ecosystem. Despite their poor living conditions and socially accepted concepts and traditions are divergent from

mainstream society, this does not affect the cohesiveness and support that characterize tribal life.

Tribals have a special respect for nature and a strong sense of community. There appears to be a deep interconnectedness between themselves and elements of the earth and the universe, be it animate or inanimate, whereby the people, landforms, trees, plants, water and celestial beings are in synergy with each other. As indicated, they revere nature as God, and refer to this God as the God of Green, who through the trees and the forest is able to sustain them. Their way of worshipping a Supreme God is through religious beliefs and practices that involve the worship of nature, animism and totemism. Prayer is undertaken to the trees, animals and sources of water. They also make offerings of food to totems as part of their spirituality.their reverence for nature is embedded in their profound faith that deities and supernatural powers reside within natural phenomena, such as forests, mountains and aquatic bodies such as rivers, ponds or streams. In several rural areas of India, many plants and animals are believed to be pious and sacred, which aids in distributing cultural values among the tribal communities. Whilst most of India adheres to Hinduism as their faith, and worships idols who represent the different Gods and Goddesses, the tribal community worship nature as their God. Community and connectedness with land and nature is experienced in a way that provides proper nutrition and shelter.

Both plants and animals, then, are considered as manifestations of divine energy. According to Durkheim, totemism integrates the community, the individual and the group, while simultaneously strengthening social life by dispersing social values and moral beliefs, thus forming the ‘collective conscience’, wherein all community members share a joint solidarity in spiritual belief. As indicated by one of the participants, offerings are made to stones which are regarded as totems that represent tigers. Spirituality is a “connectedness to the past, ancestors, and the values that they represent, for example respect for elders, a moral/ethical path”. People, plants, trees or places are linked to the spirit of creation, as well as mutually to each other, which …called “mutual spirit being”, and this is also considered as totemism. said the totemic relationship is predicated on the belief that people assume relationships with the species and the totemic site, or sacred site, in the landscape.Despite these forms of worship, and partly due to population

growth and increased exposure over an extended time span, tribal communities have been influenced to a certain extent by mainstream Hindu culture, which has resulted in a portmanteau of beliefs.

This spirituality has been passed down from ancient times, through the generations. There are no sacred texts amongst the tribals, like the Bible or Bhagavad Gita, but rather their spirituality is passed onto each generation orally. It would also appear that the spiritual values and principles that guide them are embedded in stories and songs which hold a deep meaning to them, and become sources of strength during times of difficulty. They added that indigenous peoples reside in mountains, woodlands and forests, as do the tribals in this study, and they identify themselves with their physical environments and territories, along with their affiliation to an extended family, clan, village or tribe. Moreover, each has their own unique history, worldview, culture, language, dress, food and sacred and secular ceremonies, as reflected within the excerpts that follow.Participants reported that the tribals seek the help of traditional healers when confronted with problems related to their physical health and psycho-spiritual health. It is evident that within these deep forest areas, healers serve as doctors, and are the cornerstone of tribal healing methodologies. Indigenous knowledge systems can be defined as "the sum total of the knowledge and skills which people in a particular geographic area possess, and which enables them to get the most of the natural environment". Participants also reported that these healers use herbs to make medicines, as they have a deep understanding of what herbs can be used to treat various ailments. Healthcare and medicinal treatment has thus been historically treated naturally by the use of various plants and natural remedies, specifically by traditional healers in lieu of medical professionals.

In India, Ayurveda is the term used to refer to a natural system of healing which relies on the use of herbs, amongst other approaches to health and well-being. Tribal members acquireprofound knowledge, developed through a significant awareness of their local environments and detailed ecological processes that has been transmitted through the passage of time. Thus, they possess distinctive knowledge on the usage of assorted plant parts in the curing of ailments, and have evolved into experts in using different formulations containing plant parts to cure ailments as a type of primary health care. This is a component of their cultural

practices, and founds their ability to sustain health and prevent diseases among them. Unfortunately, the knowledge and understanding of medicinal properties and remedies is still mostly in the hands of the healers, who by and large are elderly members of the community, potentially exacerbating the risk of such practices not continuing into the future. However, what appears is that it is passed down through the generations to others who are revered as healers in the community.

Nature and natural phenomena are prioritized as their religion. This is expressed as animism, which prioritizes plants and animals as symbols of divinity. The term animism is the belief that a soul or spirit exists in all objects, even inanimate ones admit that animists perceive all manner of entities, both sentient and non-sentient, as being animated and alive. As such, in the animist view of the world, humans are a link in the cosmic chain of events that summons lower orders (minerals, plants and animals) to join higher ones (spirits, ancestors and gods).

As such, an understanding of tribal spirituality is crucial to working successfully with such communities where social work intervention is most needed. This is in keeping with the indigenization of social work in India, which requires the development of knowledge that takes into account the socio-political and economic context of people's lives, as well as ethnocentric factors such as caste, tribe, religion and culture. These factors influence the development of poor and marginalized sectors of the population. Decolonized social work cannot remain at a disjuncture from religion, as social workers who work with individuals, groups and communities must be respectful of related religious, caste, ethnic and cultural differences.

***Detail on the impact of education on ethno medicine and health care practices among tribal people of India.***

Education and health are most important element in development of any community. Education plays an important role as human resources in all over world specially for marginalised people. Scheduled tribes are the victims to exploitation of middleman, merchants, moneylenders on account of their illiteracy and ignorance. Expansion of education in a community, depends on factors like universal provision of school in, universal enrolment, retention of pupils in school until they complete prescribed course. Education system is not only a key

mechanism for economic development of sections of people but also powerful instrument for accelerating the process of social changes.

Education creates empowerment among people. They can aware about their health and take better prevention for better health. They can secure their natural resources and property. For development of marginalised section, various tribal institution hasbeen established in all over nation still poor become poorer and rich become richer. People who are aware about their right not trying to inform others in their same communities for development in grass root level is impossible.

Education is one of primary agents of transformation towards development. Education is an input not only for economic development of tribes but also for inner strength of tribal community which helps them in meeting new challenges of life; it prepares people for professions other than the traditional ones in their tribe. Due to modern education system, young ethnic people who had enrolled is facing problem of communication between grandparents and grandchildren exist in families and ethnic groups.

Medicinal plants have been utilized by people as essential healthcare. Nearly 80% of worlds population, in developing nations utilize medicinal plants for their healthcare. The practice of medicinal plants is growing rapidly due to low prices, limited accessibility of modern medicine and influence of cultural or social beliefs. This traditional knowledge of medicinal plants is vulnerable to being degraded by modern western paradigm. Efforts should be adopted to preserve and document traditional knowledge and practices of medicinal plants in indigenous communities are needed especially in tribal communities. Traditional knowledge of medicinal plants is an intangible cultural heritage that must be preserved. The younger generation contributes in preservation of traditional knowledge; their interest in traditional medicine concepts and practices is low as compared to modern medicines. The tendency of decline of traditional knowledge in younger generation to occur in various parts of world. Biggest factors for low level of traditional knowledge of younger generation in inadequate education system thus failing to maintain traditional knowledge inherited from their ancestors.

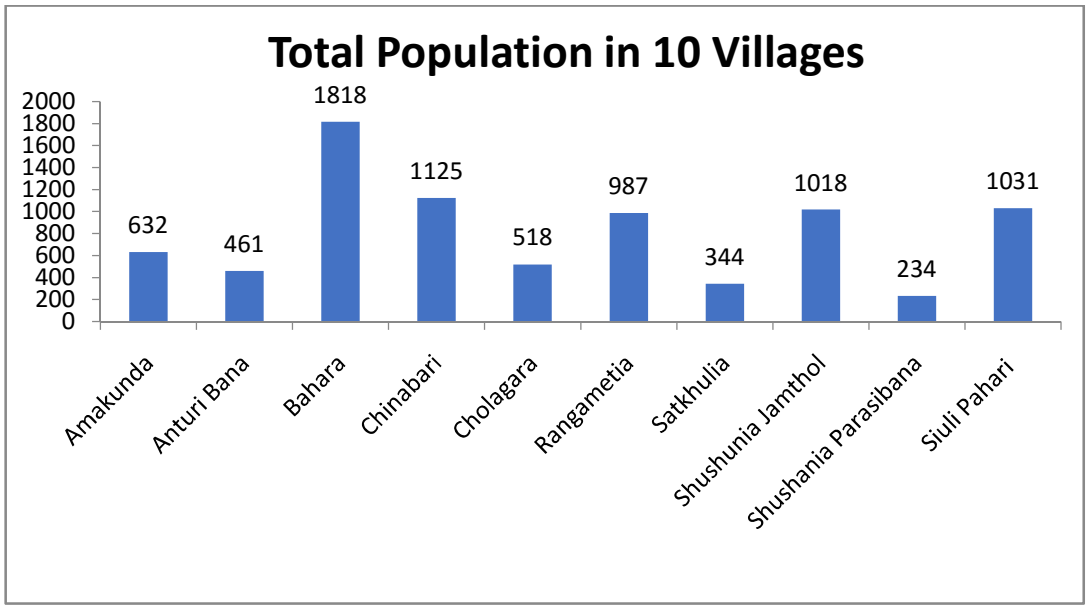
The difference in educational background of tribal community is inversely proportional to level of traditional knowledge. Education obtained by tribal

community does not provide information about local knowledge of traditional medicinal plants. Majority of knowledge about traditional medicines were mastered by elder members of their society; traditional knowledge is concentrated so it is relatively difficult to transfer it from parents to younger generation. The knowledge of medicinal plants and transfer of knowledge to younger generation have been influenced by modernization and environmental changes. The traditional knowledge is obtained from elder generation and passed on to younger generation through informal education system. Majority of informal education system is delivered to youth orally by their family members. The involvement of traditional healers as source of traditional knowledge is high; thus, in order to maintain ethnomedicine knowledge among young people there needs to be deliberate program of government and non-governmental organizations that incorporate local content into formal education curriculum.

# STATISTICAL ANALYSIS

**Table 1: Total Population in 10 Villages**

| Sl. No. | Village Name | Male Population | Female Population | Total Population |
|---|---|---|---|---|
| **01** | Amakunda | 320 | 312 | 632 |
| **02** | Anturi Bana | 237 | 224 | 461 |
| **03** | Bahara | 923 | 895 | 1818 |
| **04** | Chinabari | 573 | 552 | 1125 |
| **05** | Cholagara | 273 | 245 | 518 |
| **06** | Rangametia | 492 | 495 | 987 |
| **07** | Satkhulia | 175 | 169 | 344 |
| **08** | ShushuniaJamthol | 520 | 498 | 1018 |
| **09** | Shushania Parasibana | 114 | 120 | 234 |
| **10** | Siuli Pahari | 526 | 505 | 1031 |
| | **Total Population** | **4153** | **4015** | **8168** |




From the above table the present researcher has found that out of 10 villages the total population is 8,168 out of which the total male population is 4153 and female population is 4015.

Thus, from the above analysis the present researcher has concluded that the majority of the population are males persons i.e. **4153.**

**Table 2: Age Group of the Villagers**

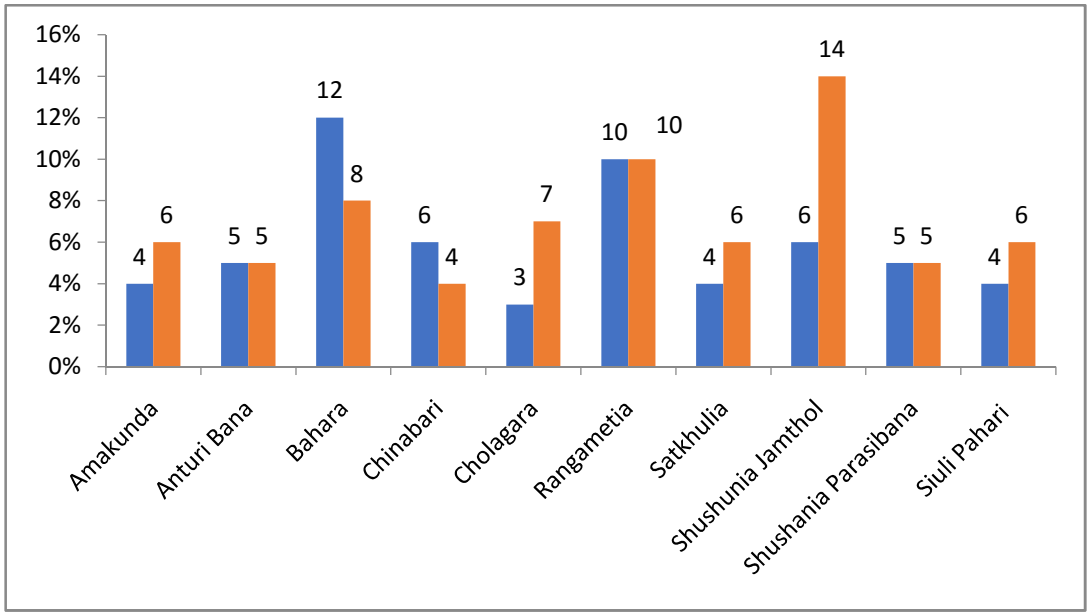
| Sl. No. | Village Name | 0-14Y | 14-18Y | 19-40Y | 41-65Y | 70> | Total |
|---|---|---|---|---|---|---|---|
| **01** | Amakunda | 2 | 3 | 1 | 2 | 2 | 10 |
| **02** | Anturi Bana | 1 | 2 | 4 | 1 | 2 | 20 |
| **03** | Bahara | 1 | 2 | 3 | 5 | 9 | 10 |
| **04** | Chinabari | 1 | 3 | 4 | 1 | 1 | 10 |
| **05** | Cholagara | - | 1 | 2 | 5 | 2 | 20 |
| **06** | Rangametia | 5 | 2 | 3 | 3 | 7 | 10 |
| **07** | Satkhulia | - | - | 4 | 6 | - | 20 |
| **08** | ShushuniaJamthol | - | 2 | 8 | 2 | 8 | 10 |
| **09** | Shushania Parasibana | 2 | - | - | 4 | 4 | 10 |
| **10** | Siuli Pahari | 1 | 3 | 4 | 1 | 1 | 10 |
| | **Total Respondents** | **13 (10%)** | **18 (14%)** | **33 (25%)** | **30 (23%)** | **36 (28%)** | **130 (100%)** |

From the above table the present researcher has found that out of 130 (100%)respondents with in age group 0-14Y 130(10%) respondents with in age group 14-18Y; 18 (14%) respondents with in age group 19-40Y; 33 (25%) respondents with in age group 41-65Y (23%) and 36(28%) respondents with in age group 70>.

Thus, from the above analysis the present researcher has found that the majority 36 **(28%)** of respondents area within age group 70>.

**Table 3: Sexual Composition**

| Sl. No. | Village Name | Female | Male | Total |
|---|---|---|---|---|
| **01** | Amakunda | 4 | 6 | 10 |
| **02** | Anturi Bana | 5 | 5 | 20 |
| **03** | Bahara | 12 | 8 | 10 |
| **04** | Chinabari | 6 | 4 | 10 |
| **05** | Cholagara | 3 | 7 | 20 |
| **06** | Rangametia | 10 | 10 | 10 |
| **07** | Satkhulia | 4 | 6 | 20 |
| **08** | ShushuniaJamthol | 6 | 14 | 10 |
| **09** | Shushania Parasibana | 5 | 5 | 10 |
| **10** | Siuli Pahari | 4 | 6 | 10 |
| | **Total Population** | **59 (45%38)** | **71 (54.62%)** | **130 (100%)** |

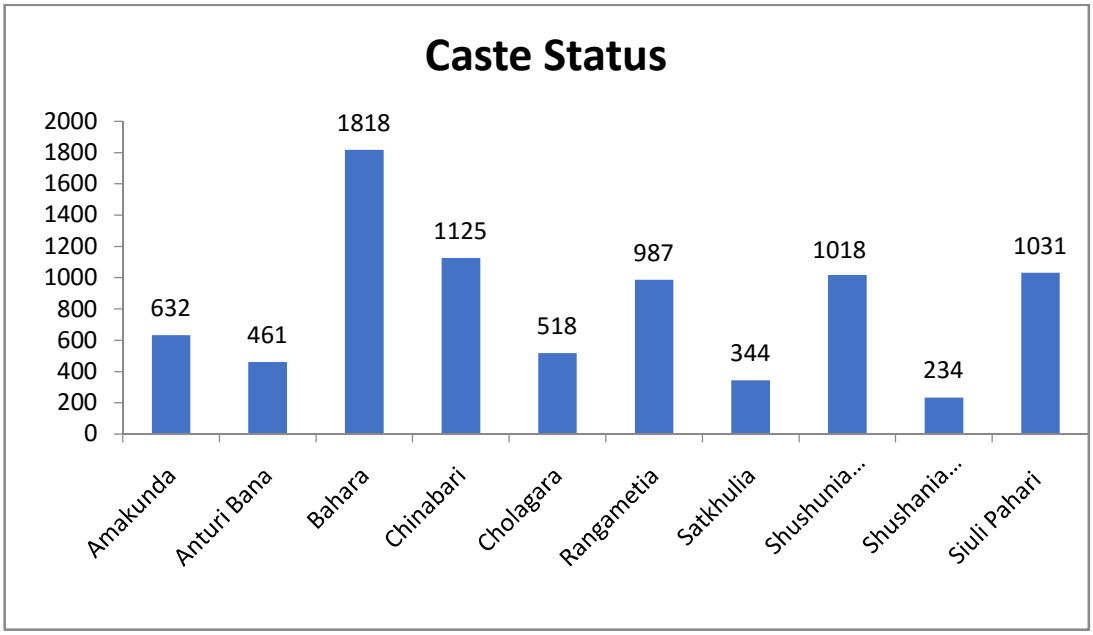



From the above table the present researcher has found that out of 130 (100%) respondents, 59 (45.38%) respondents are female and 71 (54.62%) respondents are male.

Thus, from the above analysis the present researcher has concluded that the majority 71(54.62%) of the respondents are female.

**Table 4: Caste Status of Population**

| Sl. No. | Vill. | General | SC | ST | OBC (A) | OBC (B) | Total |
|---|---|---|---|---|---|---|---|
| **01** | Amakunda | 89 | 185 | 201 | 77 | 80 | 632 |
| **02** | Anturi Bana | 135 | 128 | 35 | 73 | 90 | 461 |
| **03** | Bahara | 158 | 651 | 436 | 134 | 139 | 1818 |
| **04** | Chinabari | 313 | 153 | 360 | 141 | 158 | 1125 |
| **05** | Cholagara | 137 | 00 | 127 | 120 | 134 | 518 |
| **06** | Rangametia | 74 | 42 | 759 | 57 | 55 | 987 |
| **07** | Satkhulia | 1 | 00 | 343 | 00 | 00 | 344 |
| **08** | ShushuniaJamthol | 111 | 171 | 580 | 71 | 85 | 1018 |
| **09** | Shushania Parasibana | 00 | 167 | 67 | 00 | 00 | 234 |
| **10** | Siuli Pahari | 157 | 554 | 23 | 143 | 154 | 1031 |
| | **Total Population** | **1175** | **2051** | **3231** | **816** | **895** | **8168** |

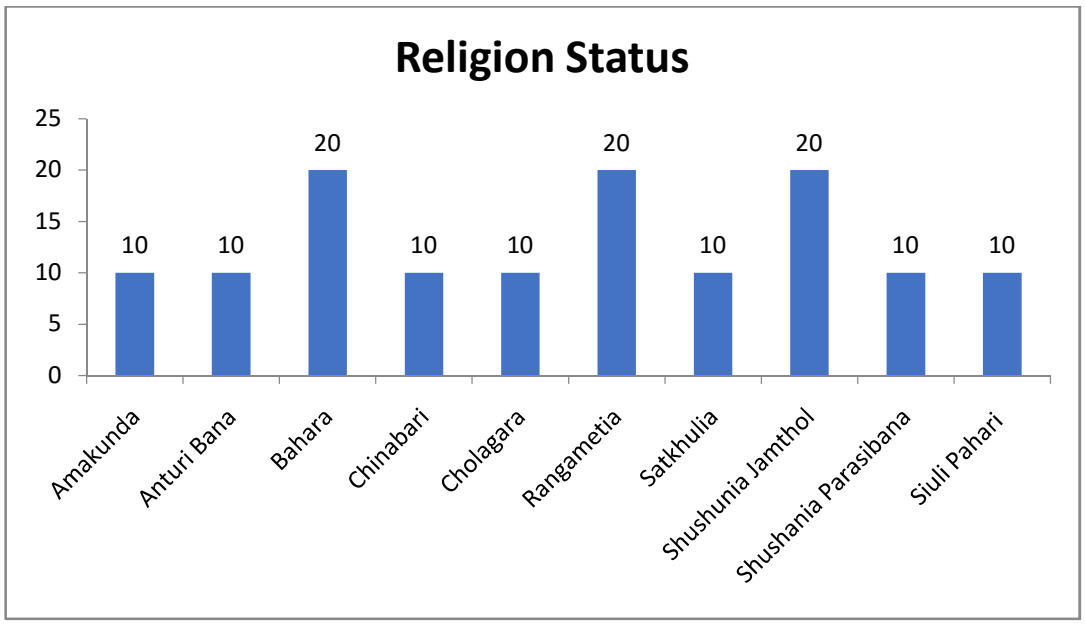



From the above table the present researcher has found that out of 8168 population. In between where general caste people area 1175, Schedule caste people are 2051, scheduled tribe are 3231, other backward caste people (A) area 816 and other backward caste (B) area 895.

Thus, from the above analysis it has been found that the majority of people belong to the schedule tribe **(3231).**

**Table 5: Religion Status of the villagers**

| Sl. No. | Village Name | Hindu | Muslim | Christian | Others | Total |
|---|---|---|---|---|---|---|
| **01** | Amakunda | 10 | - | - | - | 10 |
| **02** | Anturi Bana | 20 | - | - | - | 20 |
| **03** | Bahara | 10 | - | - | - | 10 |
| **04** | Chinabari | 10 | - | - | - | 10 |
| **05** | Cholagara | 20 | - | - | - | 20 |
| **06** | Rangametia | 10 | - | - | - | 10 |
| **07** | Satkhulia | 20 | - | - | - | 20 |
| **08** | ShushuniaJamthol | 10 | - | - | - | 10 |
| **09** | Shushania Parasibana | 10 | - | - | - | 10 |
| **10** | Siuli Pahari | 10 | - | - | - | 10 |
| | **Total Respondents** | **130 (100%)** | **-** | **-** | **-** | **130 (100%)** |

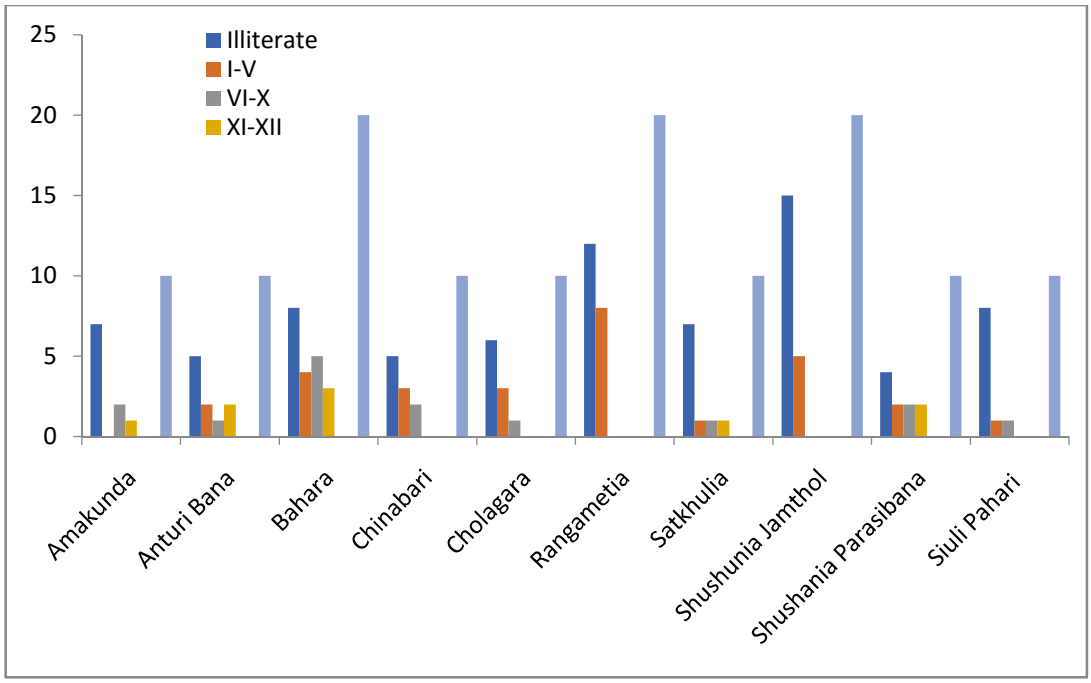



From the above table the present researcher has found that out of 130 (100%) respondent; 130 (100%) respondents are Hindu, 00 respondent is Muslim, 00 respondent is Christian and 00 respondent belong to others.

Thus, from the above analysis it been has found that the majority 130(100%) of the respondents are Hindu.

**Table 6: Educational Status**

| Sl. No. | Village Name | Illiterate | I-V | VI-X | XI-XII | Graduate | Post Graduate | Total |
|---|---|---|---|---|---|---|---|---|
| **01** | Amakunda | 7 | - | 2 | 1 | - | - | 10 |
| **02** | Anturi Bana | 5 | 2 | 1 | 2 | - | - | 20 |
| **03** | Bahara | 8 | 4 | 5 | 3 | - | - | 10 |
| **04** | Chinabari | 5 | 3 | 2 | - | - | - | 10 |
| **05** | Cholagara | 6 | 3 | 1 | - | - | - | 20 |
| **06** | Rangametia | 12 | 8 | - | - | - | - | 10 |
| **07** | Satkhulia | 7 | 1 | 1 | 1 | - | - | 20 |
| **08** | Shushunia Jamthol | 15 | 5 | - | - | - | - | 10 |
| **09** | Shushania Parasibana | 4 | 2 | 2 | 2 | - | - | 10 |
| **10** | Siuli Pahari | 8 | 1 | 1 | - | - | - | 10 |
| | **Total Respondents** | **77 (59.23%)** | **29 (22.31%)** | **15 (11.54%)** | **9 (6.92%)** | **00 (00%)** | **00 (00%)** | **130 (130%)** |

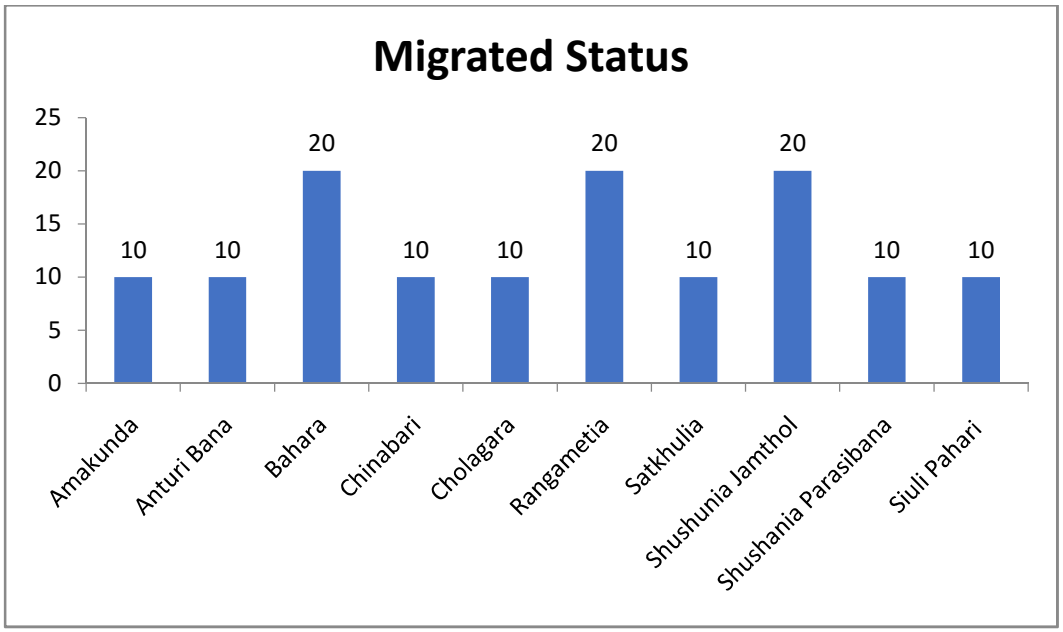



From the above table the present researcher has found that out of 130 (100%) respondents 77 (59.23%) respondents are illiterate; 29 (22.31%) respondents are I-V, 15 (11.54%) respondents are VI-X, 9 (6.92%) respondents are XI-XII, 00 (00%) respondent is Graduate and 00 (00%) respondent is P.G.

Thus, from the above analysis the present researcher has found that the majority 77 (29.23%) of respondents are illiterate.

**Table 7: Migrated Status of the Villagers**

| Sl. No. | Village Name | Yes | No | Total |
|---|---|---|---|---|
| **01** | Amakunda | - | 10 | 10 |
| **02** | Anturi Bana | - | 20 | 20 |
| **03** | Bahara | - | 10 | 10 |
| **04** | Chinabari | - | 10 | 10 |
| **05** | Cholagara | - | 20 | 20 |
| **06** | Rangametia | - | 10 | 10 |
| **07** | Satkhulia | - | 20 | 20 |
| **08** | ShushuniaJamthol | - | 10 | 10 |
| **09** | Shushania Parasibana | - | 10 | 10 |
| **10** | Siuli Pahari | - | 10 | 10 |
| | **Total Population** | **-** | **130 (100%)** | **130 (100%)** |




From the above table the present researcher has found that out of 130 (100%) respondent, 00 (00%) respondent has migrated and 130 (100%) respondents have not migrated.

Thus, from the above analysis it has been found that the majority 130 **(100%)** of the respondents have not migrated.

**Table 8: Occupation of the Population**

| Sl. No. | Village Name | Daily Labour | Carpenter | Mech. Service | Shop Keeper | Vendor | Rickshaw Puller | Van Puller | House Wife | House Maid | Mason | Farmer | Anyone | Un-employed | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | Amakunda | 3 | - | - | - | - | - | - | - | - | - | 3 | - | 4 | 10 |
| 02 | Anturi Bana | 4 | 1 | - | - | - | - | - | - | - | 1 | 4 | - | - | 10 |
| 03 | Bahara | 6 | 2 | - | 2 | - | 3 | 2 | - | 1 | 1 | 2 | - | 1 | 20 |
| 04 | Chinabari | 2 | 1 | 1 | 1 | - | 1 | - | - | - | 1 | 3 | - | - | 10 |
| 05 | Cholagara | 3 | - | - | - | - | - | - | 2 | 2 | - | 3 | - | - | 10 |
| 06 | Rangametia | 5 | 3 | - | - | - | - | 2 | - | - | 3 | 6 | - | 1 | 20 |
| 07 | Satkhulia | 4 | - | - | - | 2 | - | - | - | - | - | 1 | - | 3 | 10 |
| 08 | ShushuniaJa mthol | 7 | 2 | 1 | 1 | 3 | 1 | 2 | - | - | - | 3 | - | - | 20 |
| 09 | Shushania Parasibana | 3 | 1 | - | - | 2 | 1 | 1 | - | - | - | 2 | - | - | 10 |
| 10 | Siuli Pahari | 2 | 1 | - | - | - | 1 | 1 | 1 | 1 | - | 2 | - | 1 | 10 |
| | **Total Respondents** | **39** | **11** | **2** | **4** | **7** | **7** | **8** | **3** | **4** | **6** | **29** | **0** | **10** | **130** |
| | | **30%** | **8.46 %** | **1.54%** | **3.08 %** | **5.38%** | **5.38 %** | **6.15%** | **2.31%** | **3.08%** | **4.62%** | **22.31 %** | **0%** | **7.69 %** | **100%** |

From the above table the present researcher has found that profession of the 130 (100%) respondents, 39 (30%) respondent are belong to the category of daily labour, 11 (8.46%) respondents are belong to the category of carpenter, 2 (1.54%) respondents are belong to the category of Mechanical Service, 4 (3.08%) respondents are belong to the category of Shop Keeper, 7 (5.38%) respondents are belong to the category of Vendor, 7 (5.38%) respondents are belong to the category of Rickshaw Puller, 8 (6.15%) respondents are belong to the category of Van Puller, 3 (2.3%) respondents are belong to the category of Housewife, 4 (3.07%) respondents are belong to the category of House Maid, 6 (4.62%) respondents are belong to the category of Mason, 29 (22.31%) respondents belong to the category of Farmer, 00 (00%) respondent are belong to the category of Driver, 00 (00%) respondent are belong to the category of Any other and 10 (7.69%) respondents are belong to the category of Unemployed.

Thus, from the above analysis the present Researcher has found that the majority 39%(30%) of the respondents are belong to category of Daily Labour.

**Table 9: Family Income**

| Sl. No. | Village Name | <500 | 501-2000 | 2001-4000 | 4001-6000 | 6001-8000 | 8001-10000 | >10000 | Total |
|---|---|---|---|---|---|---|---|---|---|
| **01** | Amakunda | 3 | 5 | 1 | 1 | - | - | - | 10 |
| **02** | Anturi Bana | 4 | 3 | 2 | 1 | - | - | - | 10 |
| **03** | Bahara | - | 4 | 5 | 1 | 4 | 3 | 3 | 20 |
| **04** | Chinabari | - | 1 | 2 | 2 | 2 | 2 | 1 | 10 |
| **05** | Cholagara | 1 | 1 | 2 | 3 | 2 | 1 | - | 10 |
| **06** | Rangametia | 3 | 2 | 4 | 5 | 2 | 2 | 2 | 20 |
| **07** | Satkhulia | 3 | 2 | 2 | 2 | - | 1 | - | 10 |
| **08** | ShushuniaJamthol | 1 | 3 | 5 | 4 | 3 | 2 | 2 | 20 |
| **09** | Shushania Parasibana | 2 | 1 | 3 | - | 2 | 1 | 1 | 10 |
| **10** | Siuli Pahari | 1 | 1 | 3 | - | 2 | 2 | 1 | 10 |
| | **Total Respondents** | **18 (13.85%)** | **23 (17.69%)** | **29 (22.31%)** | **19 (14.62%)** | **17 (13.07%)** | **14 (10.76%)** | **10 (7.69%)** | **130 (100%)** |

From the above table the present researcher has found that out of 130 (100%) respondents, 18 (13.25%) respondents have replied that their monthly income less than 500, 23 (17.69%) respondents have replied that their income is 501-2000, 29 (22.31%) respondents have replied that their income is 2001-4000, 19 (14.62%) respondents have replied that their income is 4001-6000, 17 (13.07%) respondents have replied that their income is 6001-8000, 14 (10.76%) respondents have replied that their income is 8001-10000, and 10 (7.69%) respondents have replied that their income is more than 10000.

Thus, from the above analysis the present researcher has found that the majority 29(22.31%) of the respondents have replied that their majority income is within range Rs. 2001-4000.

**Table 10: Identity Card**

| Sl. No. | Village Name | Voter card | Aadhaar card | Pan card | None | Total |
|---|---|---|---|---|---|---|
| 01 | Amakunda | 5 | 2 | ____ | 3 | 10 |
| 02 | Anturi Bana | 4 | 1 | 1 | 4 | 10 |
| 03 | Bahara | 10 | 3 | 5 | 2 | 20 |
| 04 | Chinabari | 4 | 2 | ___ | 4 | 10 |
| 05 | Cholagara | 5 | 4 | ___ | 1 | 10 |
| 06 | Rangametia | 12 | 3 | 2 | 3 | 20 |
| 07 | Satkhulia | 8 | 2 | __ | ___ | 10 |
| 08 | ShushuniaJamthol | 9 | 7 | 3 | 1 | 20 |
| 09 | Shushania Parasibana | 6 | 4 | ____ | ___ | 10 |
| 10 | Siuli Pahari | 4 | 4 | ____ | 2 | 10 |
| | **Total Respondents** | **67 (51.54%)** | **32 (24.62%)** | **11 (8.46%)** | **20 (15.38%)** | **130 (100%)** |

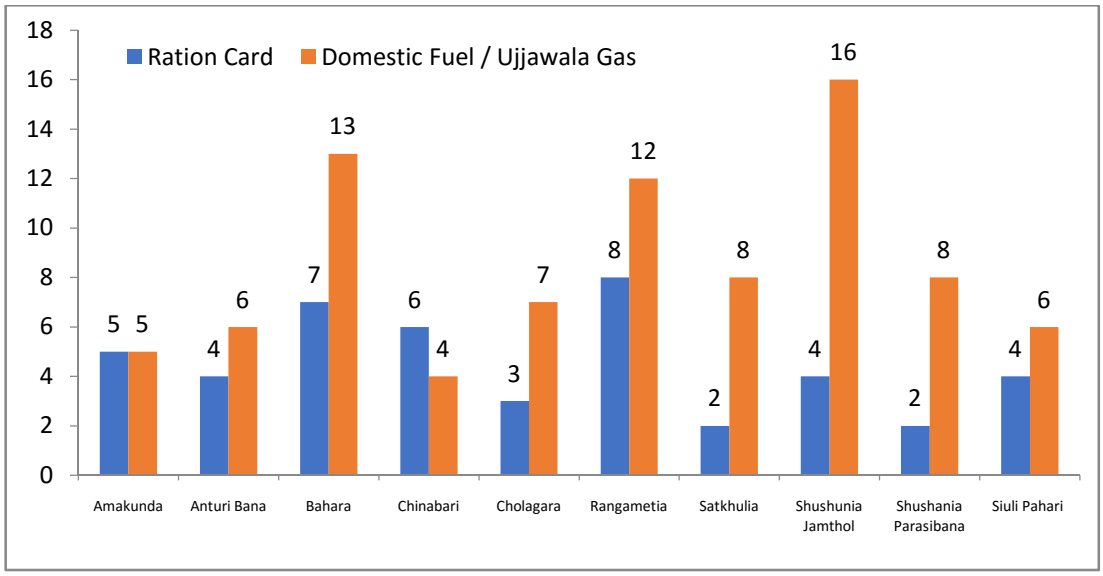
From the above table the present researcher has found that out of 130 (100%) respondents, 67(51.54%) respondents have voter cards; 32 (24.62%) respondents have Aadhar cards; 11 (8.46%) respondents have Pan cards and 20 (15.38%) respondents have no identity card with them.

Thus, from the above analysis it has been found that the majority 67(51.54%) the respondents have voter cards as their ID Cards.

**Table 11: Government Facilities**

| Sl. No. | Village Name | Ration Card | Domestic Fuel / Ujjawala Gas | TOTAL % |
|---|---|---|---|---|
| **01** | Amakunda | 5 | 5 | 10 |
| **02** | Anturi Bana | 4 | 6 | 10 |
| **03** | Bahara | 7 | 13 | 20 |
| **04** | Chinabari | 6 | 4 | 10 |
| **05** | Cholagara | 3 | 7 | 10 |
| **06** | Rangametia | 8 | 12 | 20 |
| **07** | Satkhulia | 2 | 8 | 10 |
| **08** | ShushuniaJamthol | 4 | 16 | 20 |
| **09** | Shushania Parasibana | 2 | 8 | 10 |
| **10** | Siuli Pahari | 4 | 6 | 10 |
| | **Total Respondents** | **45 (34.62%)** | **85 (65.38%)** | **130 (100%)** |

.

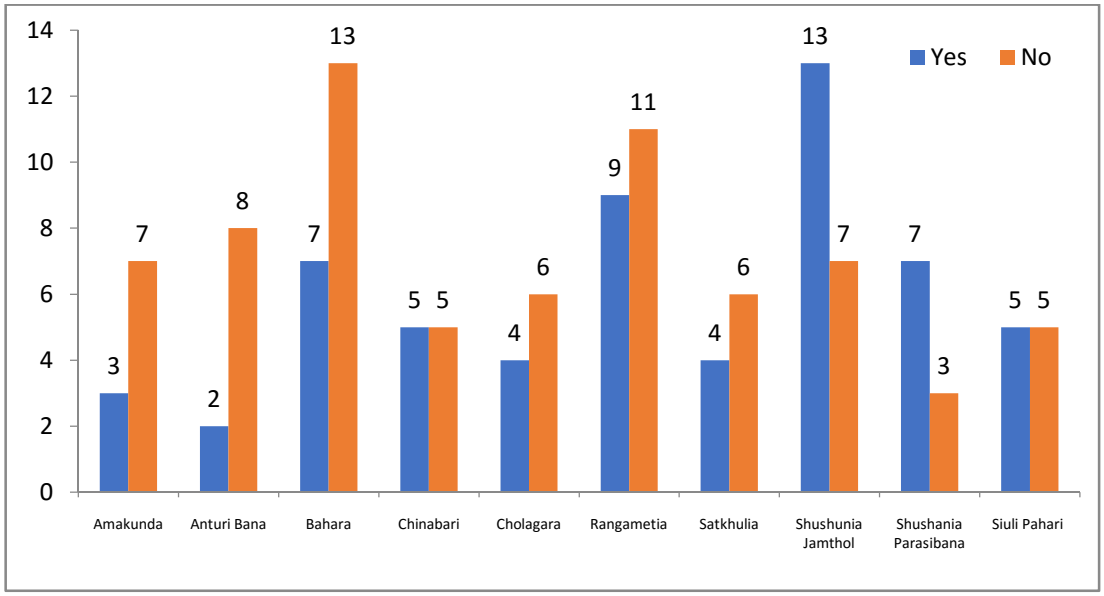



From the above table the present researcher has found that out of 130 (100%) respondents 45 (34.62%) respondents have replied that they are provided with Government facilities daily ration & 85 (65.38%) respondents have replied that they are provided with Government facilities of domestic fuel / Ujawala gas.

Thus, from the above analysis it has been found that the majority 85(65.38%) of the respondents have replied that they are provided with Government facilities of domestic fuel/ Ujawala gas.

**Table 12: Availability of Safe Drinking Water**

| Sl. No. | Village Name | Yes | No | TOTAL % |
|---|---|---|---|---|
| **01** | Amakunda | 3 | 7 | 10 |
| **02** | Anturi Bana | 2 | 8 | 10 |
| **03** | Bahara | 7 | 13 | 20 |
| **04** | Chinabari | 5 | 5 | 10 |
| **05** | Cholagara | 4 | 6 | 10 |
| **06** | Rangametia | 9 | 11 | 20 |
| **07** | Satkhulia | 4 | 6 | 10 |
| **08** | ShushuniaJamthol | 13 | 7 | 20 |
| **09** | Shushania Parasibana | 7 | 3 | 10 |
| **10** | Siuli Pahari | 5 | 5 | 10 |
| | **Total Respondents** | **59 (45.38%)** | **71 (54.62%)** | **130 (100%)** |

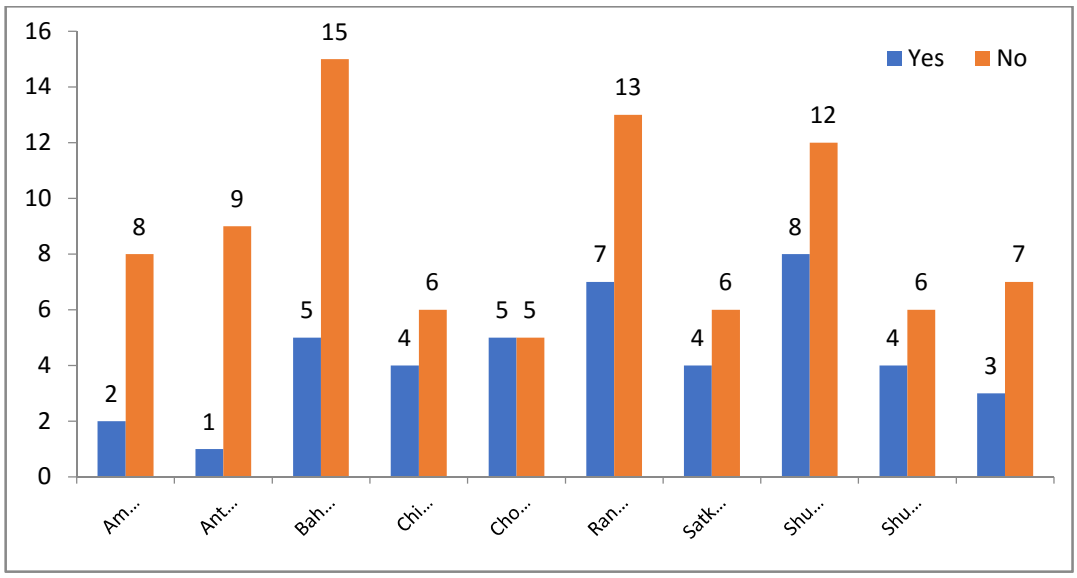



From the above table the present researcher has found that out of 130 (100%), 59 (45.38%) of respondents can avail the safe drinking water and 71 (54.62%) of respondents cannot avail of safe drinking water.

Thus, from the above analysis it has been found that the majority of respondents 71(54.62%) cannot avail the safe drinking water in their villages.

**Table 13: Availability of Sanitary System**

| Sl. No. | Village Name | Yes | No | TOTAL % |
|---|---|---|---|---|
| 01 | Amakunda | 2 | 8 | 10 |
| 02 | Anturi Bana | 1 | 9 | 10 |
| 03 | Bahara | 5 | 15 | 20 |
| 04 | Chinabari | 4 | 6 | 10 |
| 05 | Cholagara | 5 | 5 | 10 |
| 06 | Rangametia | 7 | 13 | 20 |
| 07 | Satkhulia | 4 | 6 | 10 |
| 08 | ShushuniaJamthol | 8 | 12 | 20 |
| 09 | Shushania Parasibana | 4 | 6 | 10 |
| 10 | Siuli Pahari | 3 | 7 | 10 |
| | **Total Respondents** | **43 (33.08%)** | **87 (66.92%)** | **130 (100%)** |

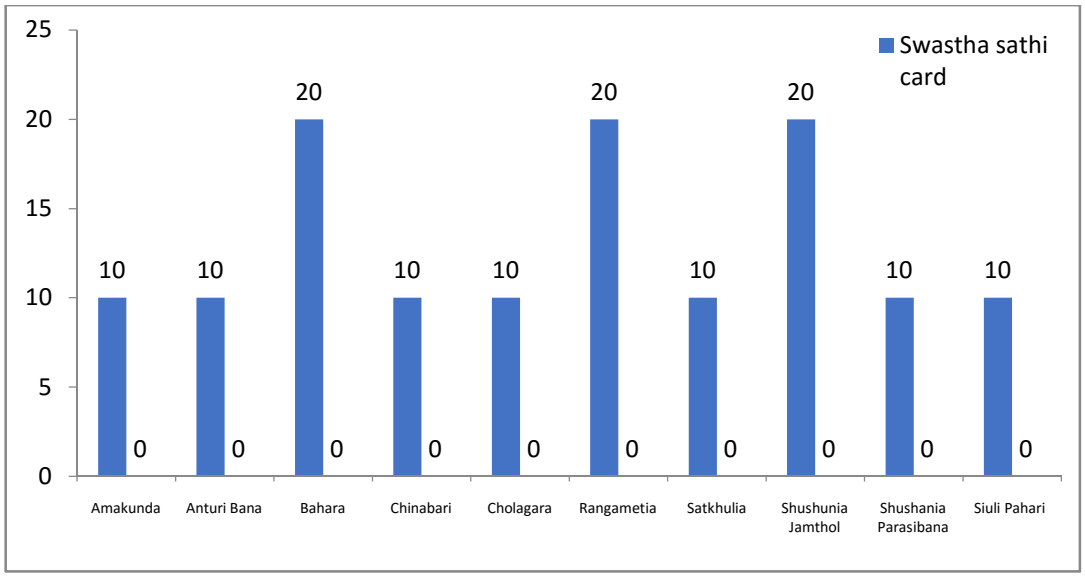



From the above table the present researcher has found that out of 130 (100%) respondents, 87 (66.92%) of the villagers can avail sanitary system and 43 (33.08%) of the villagers cannot avail sanitary system.

Thus, from the above analysis the present researcher has found that the majority 87(66.92%) of villages have no proper sanitary system.

**Table 14: Health Facilities for the Villagers**

| Sl. No. | Village Name | Health Facilities | | Health Facilities |
|---|---|---|---|---|
| | | Swastha Sathi card | Mediclaim card | |
| 01 | Amakunda | 10 | 0 | 10 |
| 02 | Anturi Bana | 10 | 0 | 10 |
| 03 | Bahara | 20 | 0 | 20 |
| 04 | Chinabari | 10 | 0 | 10 |
| 05 | Cholagara | 10 | 0 | 10 |
| 06 | Rangametia | 20 | 0 | 20 |
| 07 | Satkhulia | 10 | 0 | 10 |
| 08 | ShushuniaJamthol | 20 | 0 | 20 |
| 09 | Shushania Parasibana | 10 | 0 | 10 |
| 10 | Siuli Pahari | 10 | 0 | 10 |
| | **Total Respondents** | **130(100%)** | **0** | **130(100%)** |




From the above table the present researcher has found that out of 130 (100%) respondents 130 (100%) respondents have replied that they have been provided with Govt. health facility card, 'Swastha Sathi card'. There is no respondent who has the benefit of Mediclaim.

Thus, from the above analysis the present researcher has found that the majority 130 (100%) respondents have replied that they have Govt. health facility card like 'Swastha Sathi card'.

**Table 15**: **Primary Health Centre**

| Sl. No. | Village Name | Primary | Health Centre | Total |
|---|---|---|---|---|
| | | [Yes] | [No] | |
| **01** | Amakunda | 4 | 6 | 10 |
| **02** | Anturi Bana | 5 | 5 | 10 |
| **03** | Bahara | 10 | 10 | 20 |
| **04** | Chinabari | 6 | 4 | 10 |
| **05** | Cholagara | 4 | 6 | 10 |
| **06** | Rangametia | 8 | 12 | 20 |
| **07** | Satkhulia | 2 | 8 | 10 |
| **08** | ShushuniaJamthol | 9 | 11 | 20 |
| **09** | Shushania Parasibana | 3 | 7 | 10 |
| **10** | Siuli Pahari | 6 | 4 | 10 |
| | **Total Respondents** | **57 (43.85%)** | **73 (56.15%)** | **130 (100%)** |

From the above table the present researcher has found that out of 130(100%) respondents 57(43.85%) respondents agree to the fact that there exist health centre in their locality or community and 73(56.15%) respondents disagree with the fact that there is no health centre in their locality / community.

From the above analysis it has been found that the majority 73(56.15%) of the respondents disagree with the fact that there is no health centre in their locality / community.

**Table : 16 Diseases& Health Related Problems**

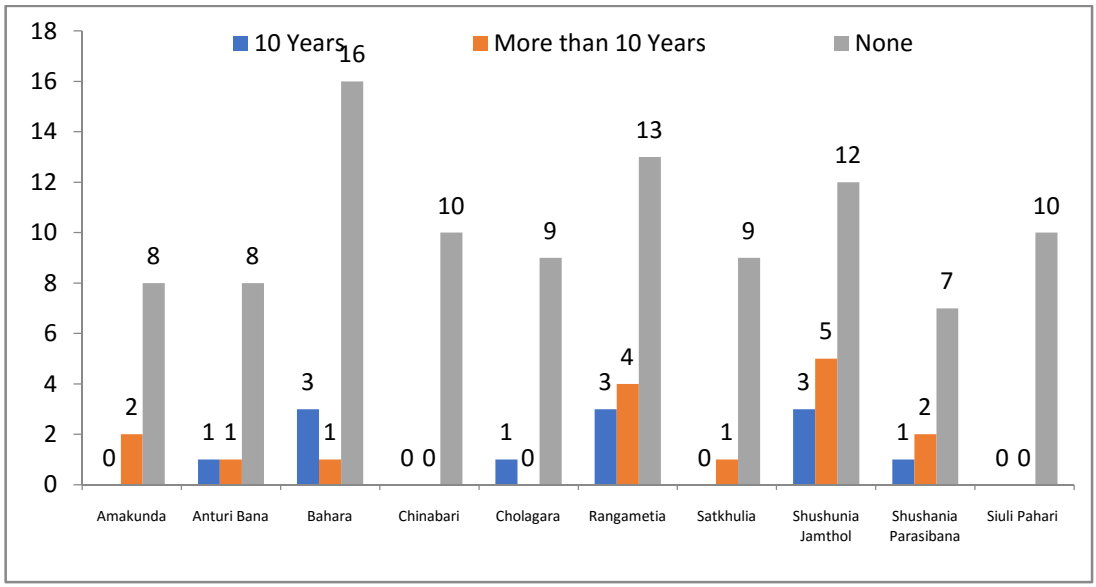
| Sl. No. | Village Name | Cold & cough | Fever | Diarrhea | Dehydration | Jaundice | Tuberculosis | Skin disease | Gynecological problem | Masal pain | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | Amakunda | 2 | 1 | 1 | 1 | ___ | 1 | 1 | 3 | ___ | 10 |
| 02 | Anturi Bana | 1 | ___ | 2 | ___ | 1 | ___ | 2 | 4 | ___ | 10 |
| 03 | Bahara | 2 | 3 | 2 | 1 | 1 | 2 | 2 | 5 | 2 | 20 |
| 04 | Chinabari | 1 | 1 | 1 | ___ | ___ | 1 | 1 | 5 | ____ | 10 |
| 05 | Cholagara | 1 | 1 | 1 | ___ | 2 | 2 | 1 | 2 | ____ | 10 |
| 06 | Rangametia | 2 | 1 | 1 | 2 | 1 | 3 | 3 | 6 | 1 | 20 |
| 07 | Satkhulia | 3 | 3 | 1 | 1 | __ | ___ | ____ | 2 | ___ | 10 |
| 08 | ShushuniaJamthol | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 9 | ____ | 20 |
| 09 | Shushania Parasibana | 1 | 1 | 1 | 1 | ___ | 1 | 2 | 2 | 1 | 10 |
| 10 | Siuli Pahari | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 10 |
| | **Total Respondents** | **16 (12.31%)** | **13 (10%)** | **13 (10%)** | **8 (6.15%)** | **8 (6.15%)** | **13 (10%)** | **15 (11.54%)** | **39 (30%)** | **5 (3.85%)** | **130 (100%)** |

From the above table the present researcher has found that out of 130 (100%) respondents suffer from various diseases and health related problems like 16 (12.31%) suffer from cold and cough; 13 (10%) suffer from fever; 13 (10%) suffer from diarrhoea; 8 (6.15%) suffer from dehydration; 8 (6.15%) suffer from jaundice; 13 (10%) suffer from tuberculosis; 15 (11.54%) has skin disease; 39 (30%) has gynaecological problem and 5 (5%) has muscle pain.

Thus, from the above analysis the present researcher has found that the majority 39(30%) of the respondents have suffered from gynaecological problem.

**Table 17: Suffering from illness or diseases**

| Sl. No. | Village Name | 10 Years | More than 10 Years | None | Total |
|---|---|---|---|---|---|
| **01** | Amakunda | - | 2 | 8 | 10 |
| **02** | Anturi Bana | 1 | 1 | 8 | 10 |
| **03** | Bahara | 3 | 1 | 16 | 20 |
| **04** | Chinabari | - | - | 10 | 10 |
| **05** | Cholagara | 1 | - | 9 | 10 |
| **06** | Rangametia | 3 | 4 | 13 | 20 |
| **07** | Satkhulia | - | 1 | 9 | 10 |
| **08** | ShushuniaJamthol | 3 | 5 | 12 | 20 |
| **09** | Shushania Parasibana | 1 | 2 | 7 | 10 |
| **10** | Siuli Pahari | - | - | 10 | 10 |
| | **Total Respondents** | **12 (9.23%)** | **16 (12.31%)** | **102 (78.46%)** | **130 (100%)** |

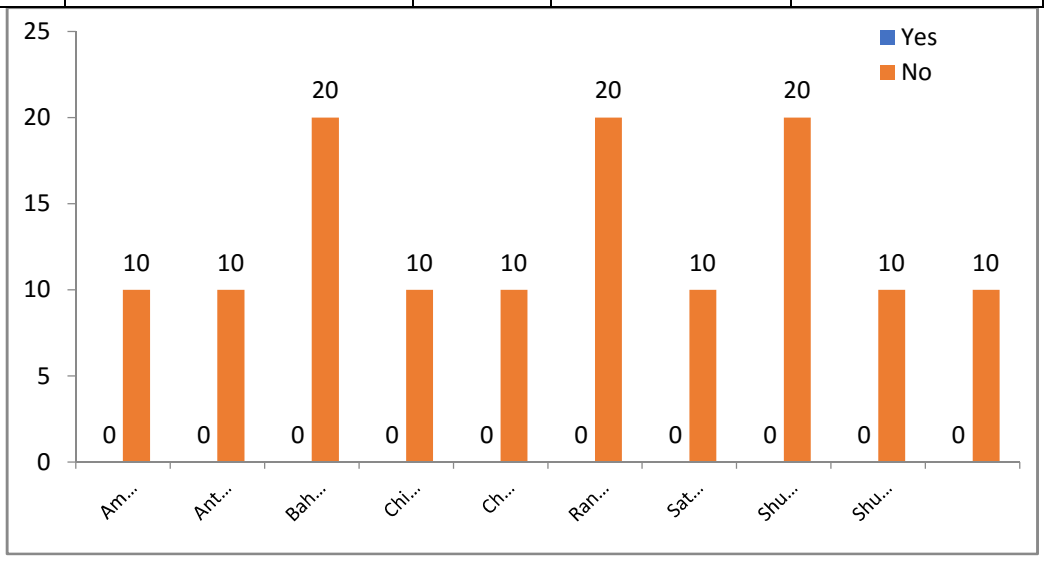



From the above table the present researcher has found that out of 130 (100%) respondents 12 (9.23%) respondents have replied that their suffering from illness or diseases 10 years, 16 (12.31%) respondents have replied that their suffering from illness or diseases more than 10 years and 102 (78.46%) respondents have replied that they didn't suffer.

Thus, from the above analysis it has been found that the majority 102(78.46%) of the respondent have replied that they didn't suffer.

**Table 18: Affected by Covid-19 Pandemic**

| Sl. No. | Village Name | COVID Affected | | Total |
|---|---|---|---|---|
| | | Yes | No | |
| **01** | Amakunda | 0 | 10 | 10 |
| **02** | Anturi Bana | 0 | 10 | 10 |
| **03** | Bahara | 0 | 20 | 20 |
| **04** | Chinabari | 0 | 10 | 10 |
| **05** | Cholagara | 0 | 10 | 10 |
| **06** | Rangametia | 0 | 20 | 20 |
| **07** | Satkhulia | 0 | 10 | 10 |
| **08** | ShushuniaJamthol | 0 | 20 | 20 |
| **09** | Shushania Parasibana | 0 | 10 | 10 |
| **10** | Siuli Pahari | 0 | 10 | 10 |
| | **Total Respondents** | **0** | **130(100%)** | **130(100%)** |




From the above table the present researcher has found that out of 130 (100%) respondents, 130 (100%) respondents are not affected by pandemic Covid.

Thus, from the above analysis it has been found that the majority 130(100%) of the respondents are not affected by Covid.

**Table 19: Types of Treatment Undergone**

| Sl. No. | Village Name | Modern Treatment | Indigenous Treatment | Both Treatment | Total |
|---|---|---|---|---|---|
| **01** | Amakunda | 1 | 5 | 4 | 10 |
| **02** | Anturi Bana | 1 | 7 | 2 | 10 |
| **03** | Bahara | 5 | 13 | 2 | 20 |
| **04** | Chinabari | 3 | 4 | 3 | 10 |
| **05** | Cholagara | 5 | 4 | 1 | 10 |
| **06** | Rangametia | 6 | 11 | 3 | 20 |
| **07** | Satkhulia | 2 | 6 | 2 | 10 |
| **08** | ShushuniaJamthol | 5 | 10 | 5 | 20 |
| **09** | Shushania Parasibana | 2 | 6 | 2 | 10 |
| **10** | Siuli Pahari | 5 | 4 | 1 | 10 |
| | **Total Respondents** | **35 (26.92%)** | **70 (53.85%)** | **25 (19.23%)** | **130 (100%)** |

From the above table the present researcher has found that out of 130 (100%) respondents, 35 (26.92%) respondents have replied that they have taken modern treatment, 70 (53.85%) respondents have replied that they have taken indigenous treatment undergone and 25 (19.23%) respondents have undergone in both the treatments.

Thus, from the above analysis the present researcher has found that the majority 70(53.85%) of the respondents have replied that they have undergone indigenous treatment.

**Table 20: Visit to modern doctor and taking any modern medicines.**

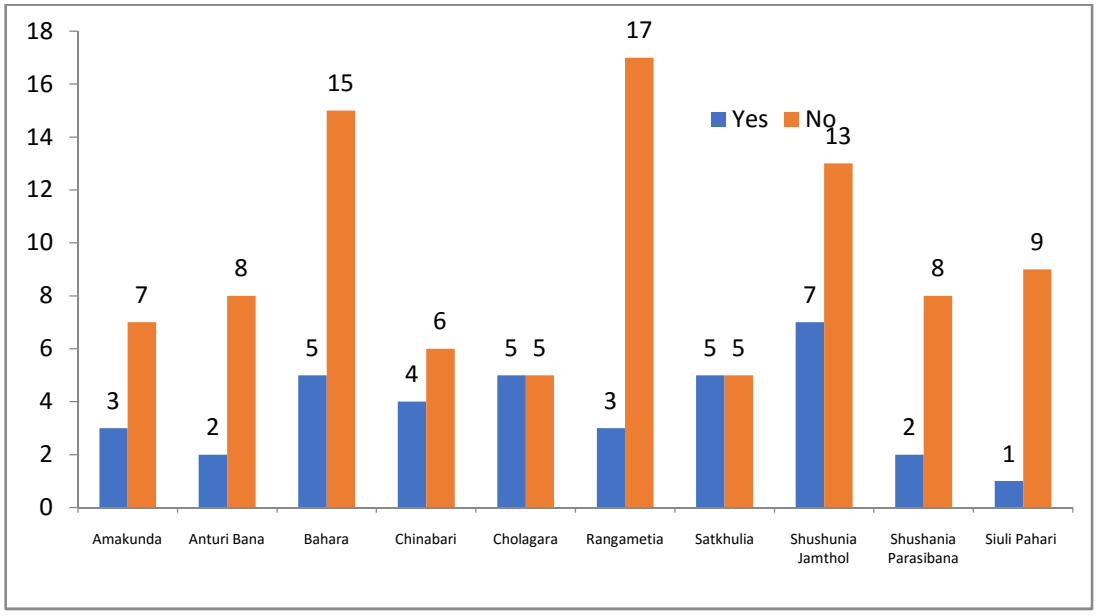
| Sl. No. | Village Name | All time | Many Time | Some Time | Never | Total |
|---|---|---|---|---|---|---|
| **01** | Amakunda | 1 | 2 | 2 | 5 | 10 |
| **02** | Anturi Bana | 1 | 1 | 1 | 7 | 10 |
| **03** | Bahara | 5 | 1 | 1 | 13 | 20 |
| **04** | Chinabari | 3 | 1 | 2 | 4 | 10 |
| **05** | Cholagara | 4 | 1 | 1 | 4 | 10 |
| **06** | Rangametia | 5 | 2 | 2 | 11 | 20 |
| **07** | Satkhulia | 2 | 1 | 1 | 6 | 10 |
| **08** | ShushuniaJamthol | 4 | 3 | 3 | 10 | 20 |
| **09** | Shushania Parasibana | 2 | 1 | 1 | 6 | 10 |
| **10** | Siuli Pahari | 2 | 2 | 2 | 4 | 10 |
| | **Total Respondents** | **29 (22.31%)** | **15 (11.54%)** | **16 (12.31%)** | **70 (53.84%)** | **130 (100%)** |

From the above table the present researcher has found that out of 130 (100%) respondents, 29 (22.31%) respondents have replied that they have all time visited and taking modern medicine, 15 (11.54%) respondents have replied that they have many times visited and taking modern medicine and 16 (12.31%) respondents have replied that they have sometime visited and taking modern medicine, and 70 (53.84%) respondents have replied that they have never visited and taking modern medicine.

Thus, from the above analysis it has been found that the majority 70(53.84%) of the respondents have replied that they have never visited modern doctor and taken modern medicine.

**Table 21: Modern Treatment after snake bite.**

| Sl. No. | Village Name | Yes | No | Total |
|---|---|---|---|---|
| **01** | Amakunda | 3 | 7 | 10 |
| **02** | Anturi Bana | 2 | 8 | 10 |
| **03** | Bahara | 5 | 15 | 20 |
| **04** | Chinabari | 4 | 6 | 10 |
| **05** | Cholagara | 5 | 5 | 10 |
| **06** | Rangametia | 3 | 17 | 20 |
| **07** | Satkhulia | 5 | 5 | 10 |
| **08** | ShushuniaJamthol | 7 | 13 | 20 |
| **09** | Shushania Parasibana | 2 | 8 | 10 |
| **10** | Siuli Pahari | 1 | 9 | 10 |
| | **Total Respondents** | **37 (28.46%)** | **93 (71.54%)** | **130 (100%)** |

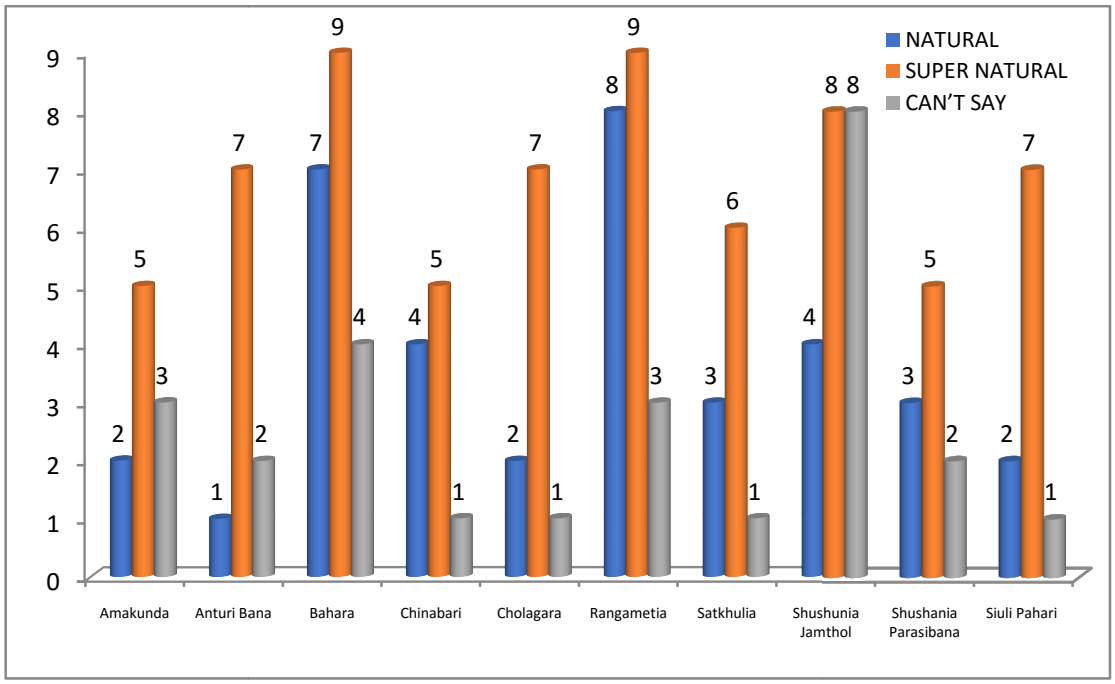



From the above table the present researcher has found that out of 130 (100%) respondents, 37 (28.46%) respondents took modern treatment after snake bite and 93 (71.54%) respondents didn't take modern treatment after snake bite.

Thus, from the above analysis the present researcher has found that the majority 93(71.54%) of the respondents didn't take modern treatment after snake bite.

**Table 22: Concept of Diseases**

| Sl. | Village Name | NATURAL | SUPER NATURAL | CAN'T SAY | TOTAL % |
|---|---|---|---|---|---|
| **01** | Amakunda | 2 | 5 | 3 | 10 |
| **02** | Anturi Bana | 1 | 7 | 2 | 10 |
| **03** | Bahara | 7 | 9 | 4 | 20 |
| **04** | Chinabari | 4 | 5 | 1 | 10 |
| **05** | Cholagara | 2 | 7 | 1 | 10 |
| **06** | Rangametia | 8 | 9 | 3 | 20 |
| **07** | Satkhulia | 3 | 6 | 1 | 10 |
| **08** | ShushuniaJamthol | 4 | 8 | 8 | 20 |
| **09** | Shushania Parasibana | 3 | 5 | 2 | 10 |
| **10** | Siuli Pahari | 2 | 7 | 1 | 10 |
| | **Total Respondents** | **36 (27.69%)** | **68 (52.31%)** | **26 (20%)** | **130 (100%)** |

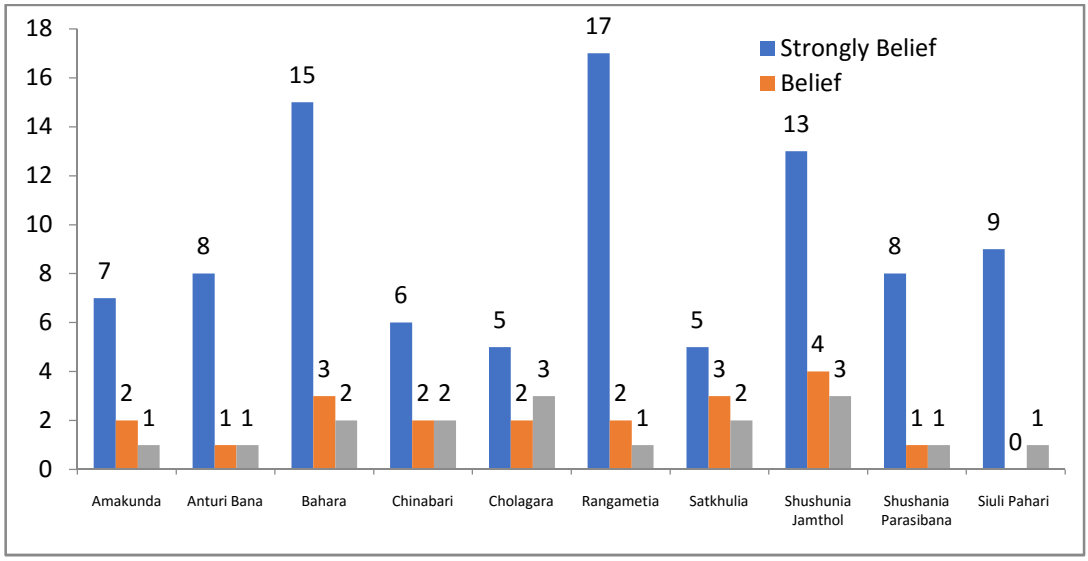



From the above table the present researcher has found that out of 130 (100%) respondents, 36 (27.69%) respondents think that cause of disease is natural; 68 (52.31%) respondents think that the cause of disease is supernatural and 26 (20%) respondents cannot say anything about cause of disease.

Thus, from the above analysis, it is seen that majority 68(52.31%) of respondents think that diseases are caused in supernatural causes.

**Table 23: Belief in Indigenous Medical Practices**

| Sl. No. | Village Name | Strongly Belief | Belief | Never Belief | Total |
|---|---|---|---|---|---|
| **01** | Amakunda | 7 | 2 | 1 | 10 |
| **02** | Anturi Bana | 8 | 1 | 1 | 10 |
| **03** | Bahara | 15 | 3 | 2 | 20 |
| **04** | Chinabari | 6 | 2 | 2 | 10 |
| **05** | Cholagara | 5 | 2 | 3 | 10 |
| **06** | Rangametia | 17 | 2 | 1 | 20 |
| **07** | Satkhulia | 5 | 3 | 2 | 10 |
| **08** | ShushuniaJamthol | 13 | 4 | 3 | 20 |
| **09** | Shushania Parasibana | 8 | 1 | 1 | 10 |
| **10** | Siuli Pahari | 9 | - | 1 | 10 |
| | **Total Respondents** | **93 (71.54%)** | **20 (15.38%)** | **17 (13.08%)** | **130 (100%)** |

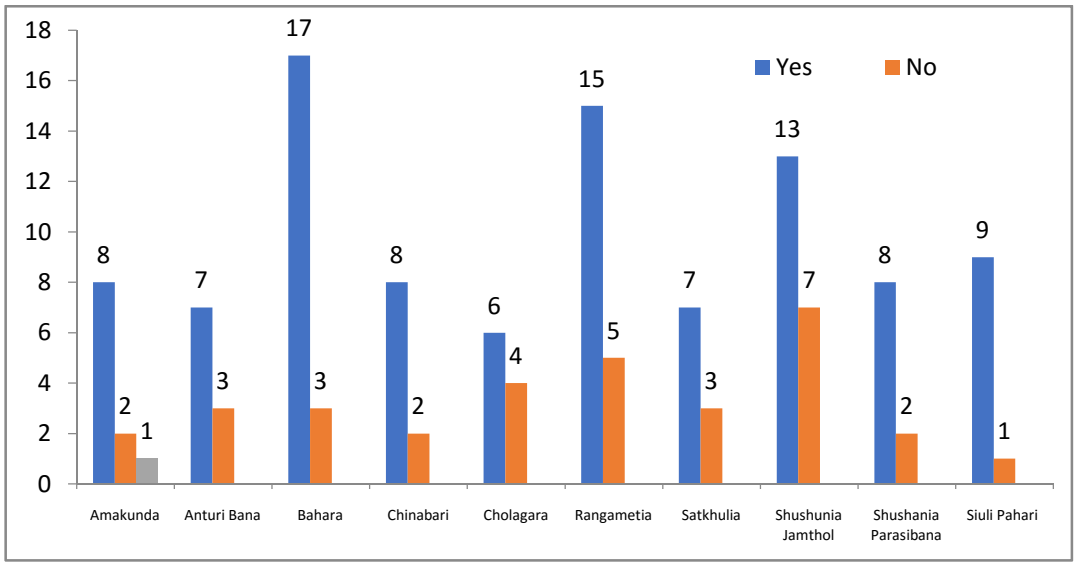



From the above table the present researcher has found that out of 130 (100%) respondents, 93 (71.54%) respondent have replied that they have strong belief in Indigenous medical practices, 20 (15.38%) respondents have replied that they have belief in indigenous medical practices and 17 (13.08%) respondents have replied that they have never believe in indigenous medical practices.

Thus, from the above analysis the present researcher has found that the majority 93(71.54%) of the respondents have replied that they have strong belief in indigenous medical practices.

**Table 24: Following of traditional method regarding any sort of illness / diseases**

| Sl. No. | Village Name | Yes | No | Total |
|---|---|---|---|---|
| **01** | Amakunda | 8 | 2 | 10 |
| **02** | Anturi Bana | 7 | 3 | 10 |
| **03** | Bahara | 17 | 3 | 20 |
| **04** | Chinabari | 8 | 2 | 10 |
| **05** | Cholagara | 6 | 4 | 10 |
| **06** | Rangametia | 15 | 5 | 20 |
| **07** | Satkhulia | 7 | 3 | 10 |
| **08** | Shushunia Jamthol | 13 | 7 | 20 |
| **09** | Shushania Parasibana | 8 | 2 | 10 |
| **10** | Siuli Pahari | 9 | 1 | 10 |
| | **Total Respondents** | **98 (75.38%)** | **32 (24.62%)** | **130 (100%)** |

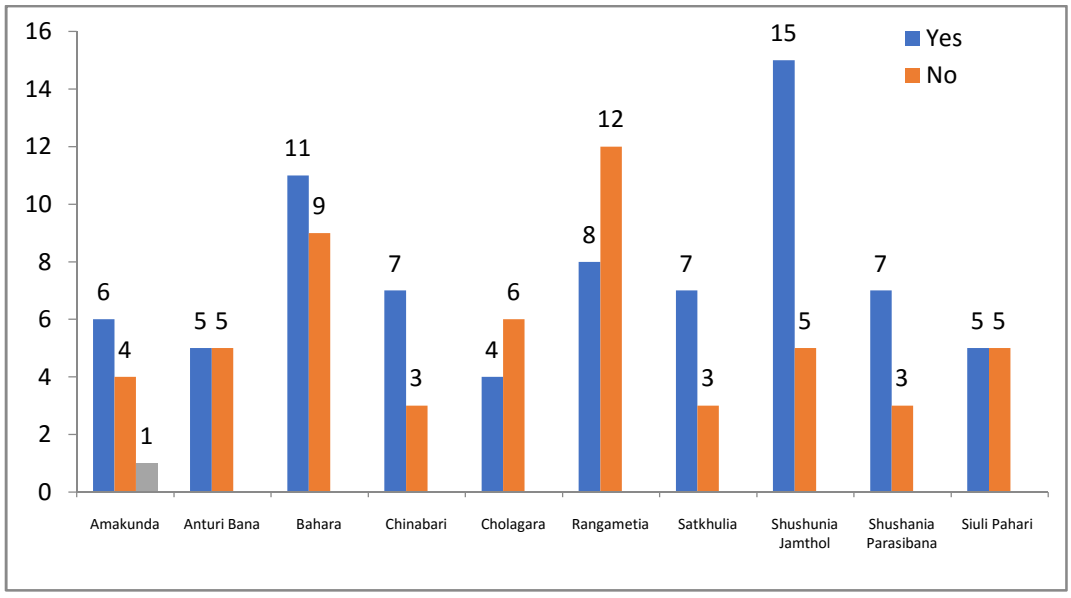



From the above table the present researcher has found that out of 130 (100%) respondents, 98 (75.38%) respondents have replied that their following of traditional method regarding any sort of illness / diseases and 32 (24.62%) respondents have replied that they do not follow any traditional method regarding any sort of illness / diseases.

Thus, from the above analysis the present researcher has found that the majority 98(75.38%) of the respondents have replied that their following of traditional method regarding any sort of illness/ diseases.

**Table 25: Fully cured practising Indigenous medicine**

| Sl. No. | Village Name | Fully cure by practicing indigenous medicine | | Total |
|---|---|---|---|---|
| | | Yes | No | |
| **01** | Amakunda | 6 | 4 | 10 |
| **02** | Anturi Bana | 5 | 5 | 10 |
| **03** | Bahara | 11 | 9 | 20 |
| **04** | Chinabari | 7 | 3 | 10 |
| **05** | Cholagara | 4 | 6 | 10 |
| **06** | Rangametia | 8 | 12 | 20 |
| **07** | Satkhulia | 7 | 3 | 10 |
| **08** | ShushuniaJamthol | 15 | 5 | 20 |
| **09** | Shushania Parasibana | 7 | 3 | 10 |
| **10** | Siuli Pahari | 5 | 5 | 10 |
| | **Total Respondents** | **75 (57.69%)** | **55 (42.31%)** | **130 (100%)** |

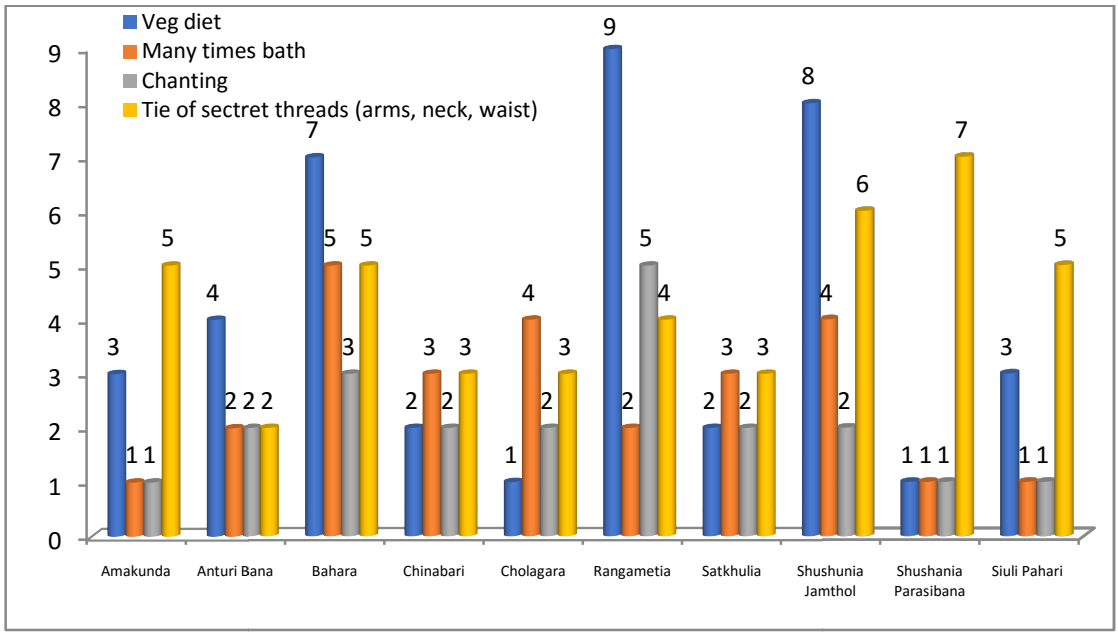



From the above table the present researcher has found that out of 130 (100%) respondents, 75 (57.69%) respondents are their family members are fully cured by practising indigenous medicine and 55 (42.31%) respondents are their family members are fully cure by practicing indigenous medicine.

Thus, from the above analysis it has been found that the majority **75(57.69%)** of the respondents their family members are fully cured by practising indigenous medicine.

**Table 26: Rules and Regulations**

| Sl. | Village name | Veg diet | Bath for more than once | Chanting | Tie of sacred threads (arms, neck, waist) | Total |
|---|---|---|---|---|---|---|
| **01** | Amakunda | 3(3%) | 1(1%) | 1(1%) | 5(5%) | 10 |
| **02** | Anturi Bana | 4(4%) | 2(2%) | 2(2%) | 2(2%) | 10 |
| **03** | Bahara | 7(7%) | 5(5%) | 3(3%) | 5(5%) | 20 |
| **04** | Chinabari | 2(2%) | 3(3%) | 2(2%) | 3(3%) | 10 |
| **05** | Cholagara | 1(1%) | 4(4%) | 2(2%) | 3(3%) | 10 |
| **06** | Rangametia | 9(9%) | 2(2%) | 5(5%) | 4(4%) | 20 |
| **07** | Satkhulia | 2(2%) | 3(3%) | 2(2%) | 3(3%) | 10 |
| **08** | ShushuniaJamthol | 8(8%) | 4(4%) | 2(2%) | 6(6%) | 20 |
| **09** | Shushania Parasibana | 1(1%) | 1(1%) | 1(1%) | 7(7%) | 10 |
| **10** | Siuli Pahari | 3(3%) | 1(1%) | 1(1%) | 5(5%) | 10 |
| | **Total Respondents** | **40 (30.77%)** | **26 (20%)** | **21 (16.15%)** | **43 (33.08%)** | **130 (100%)** |

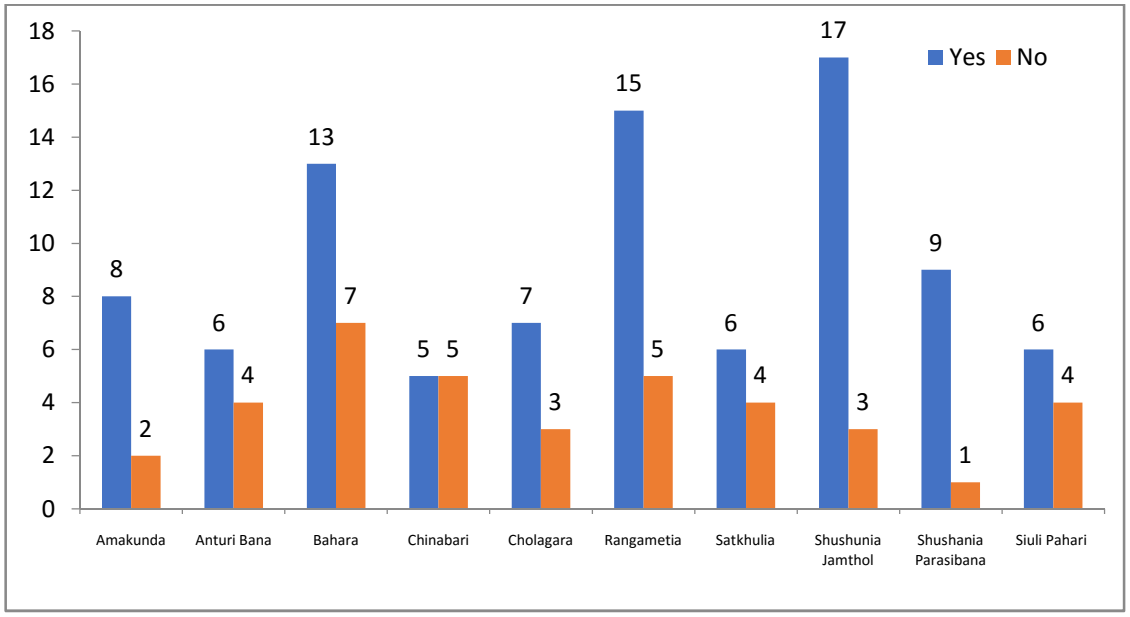



From the above table the present researcher has found that out of 130 (100%) respondents, 40 (30.77%) of respondents have replied that they consume vegetarian diet; 26 (20%) of respondents go bath for more than once; 21 (16.15%) of respondents go for chanting as regulation and 43 (33.08%) of respondents tie sacred threads in arms, neck, waist as regulation.

Thus, from above analysis, most 43(33.08%) of respondents tie sacred threads in arms, neck, waist, neck as rule and regulation.

**Table 27: Music Therapy acts as a way of medical treatment**

| Sl. No. | Village Name | Music Therapy Acts as A Way of Medical Treatment | | Total |
|---|---|---|---|---|
| | | Yes | No | |
| **01** | Amakunda | 8 | 2 | 10(10%) |
| **02** | Anturi Bana | 6 | 4 | 10(10%) |
| **03** | Bahara | 13 | 7 | 20(20%) |
| **04** | Chinabari | 5 | 5 | 10(10%) |
| **05** | Cholagara | 7 | 3 | 10(10%) |
| **06** | Rangametia | 15 | 5 | 20(20%) |
| **07** | Satkhulia | 6 | 4 | 10(10%) |
| **08** | ShushuniaJamthol | 17 | 3 | 20(20%) |
| **09** | Shushania Parasibana | 9 | 1 | 10(10%) |
| **10** | Siuli Pahari | 6 | 4 | 10(10%) |
| | **Total Respondents** | **92 (70.77%)** | **48 (36.92%)** | **130 (100%)** |

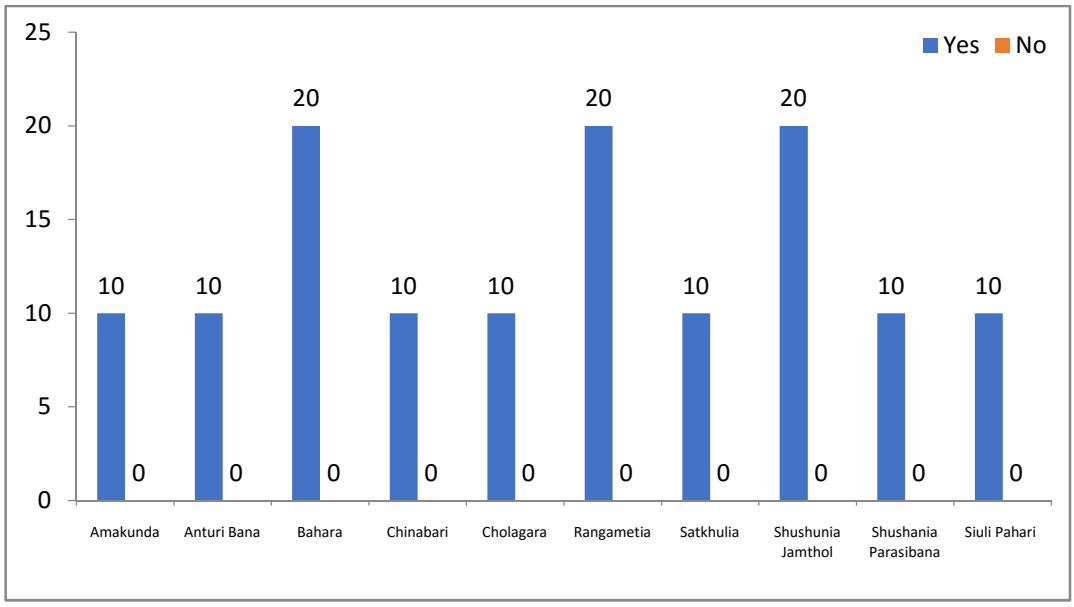



From the above table the present researcher has found that out of 130 (100%) respondents, 92 (70.77%) respondents have replied that music therapy acts as a way of medical treatment and 48(36.92%) respondents have replied that music therapy does not act as a way of medical treatment.

Thus, from the above analysis the present researcher has found that the majority 92 (70.77%) of the respondents have replied that music therapy acts as a way of medical treatment.

**Table 28: Music as a part of Daily Routine**

| Sl. No. | Village Name | Music as a Part of daily Routine | | Total |
|---|---|---|---|---|
| | | Yes | No | |
| **01** | Amakunda | 10 | 0 | 10 |
| **02** | Anturi Bana | 10 | 0 | 10 |
| **03** | Bahara | 20 | 0 | 20 |
| **04** | Chinabari | 10 | 0 | 10 |
| **05** | Cholagara | 10 | 0 | 10 |
| **06** | Rangametia | 20 | 0 | 20 |
| **07** | Satkhulia | 10 | 0 | 10 |
| **08** | ShushuniaJamthol | 20 | 0 | 20 |
| **09** | Shushania Parasibana | 10 | 0 | 10 |
| **10** | Siuli Pahari | 10 | 0 | 10 |
| | **Total Respondents** | **130(100%)** | **0** | **130(100%)** |

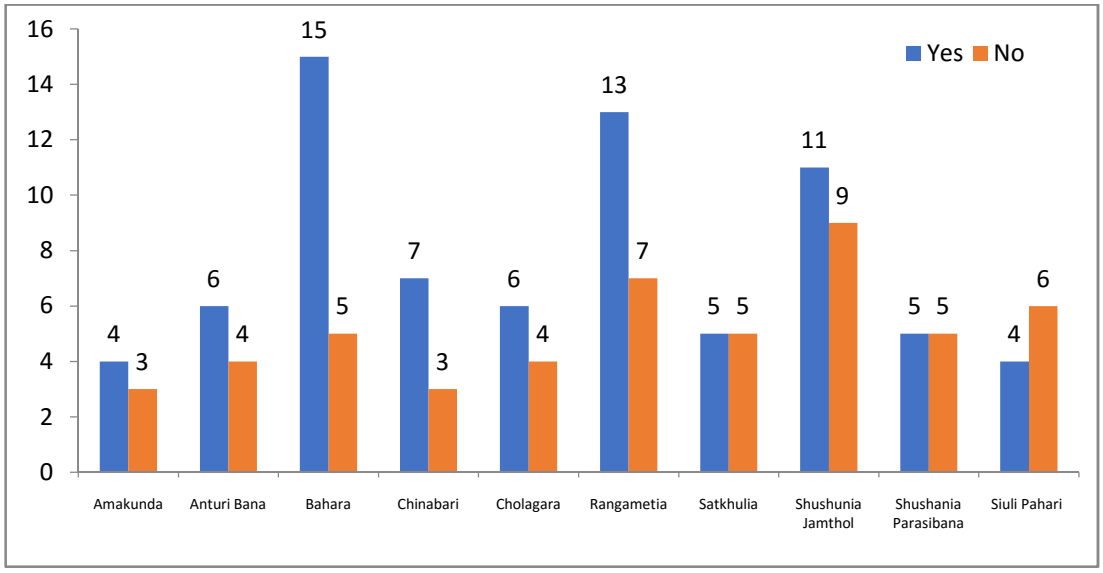



From the above table the present researcher has found that out of 130 (100%) respondents 130% respondents have replied that music is a part of daily routine.

Thus, from the above analysis the present researcher has found that the majority 130(100%) of respondents feel that music is a part of daily routine.

**Table 29: Dance act as a way of medical treatment**

| Sl. No. | Village Name | Dance Acts as a Way of Medical Treatment | | Total |
|---|---|---|---|---|
| | | Yes | No | |
| **01** | Amakunda | 7 | 3 | 10 |
| **02** | Anturi Bana | 6 | 4 | 10 |
| **03** | Bahara | 15 | 5 | 20 |
| **04** | Chinabari | 7 | 3 | 10 |
| **05** | Cholagara | 6 | 4 | 10 |
| **06** | Rangametia | 13 | 7 | 20 |
| **07** | Satkhulia | 5 | 5 | 10 |
| **08** | ShushuniaJamthol | 11 | 9 | 20 |
| **09** | Shushania Parasibana | 5 | 5 | 10 |
| **10** | Siuli Pahari | 4 | 6 | 10 |
| | **Total Respondents** | **79 (60.77%)** | **51 (39.23%)** | **130 (100%)** |

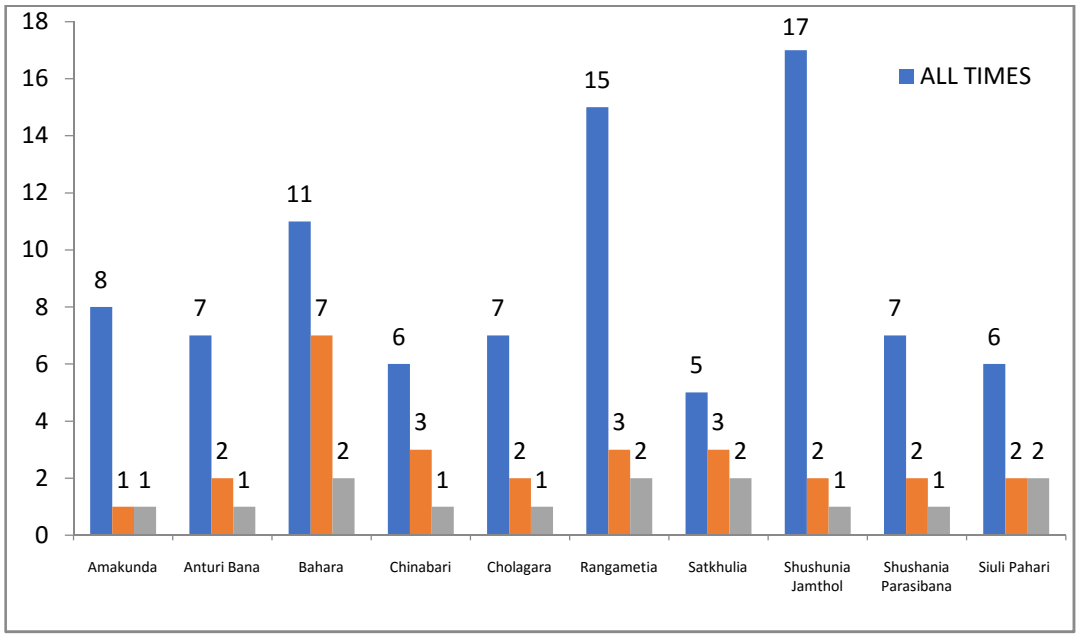



From the above table the present researcher has found that out of 130 (100%) respondents, 79 (60.77%) respondents have replied that dance act as a way of treatment and 51 (39.23%) respondents have replied that dance does not act as a way of treatment.

Thus, from the above analysis the present researcher has found that the majority 79(60.77%) of the respondent have replied that dance act as a way of treatment.

**Table 30: Role of aged people in case of indigenous medical practices**

| Sl. No. | Village Name | ALL TIMES | SOME TIMES | NEVER | TOTAL % |
|---|---|---|---|---|---|
| **01** | Amakunda | 8 | 1 | 1 | 10 |
| **02** | Anturi Bana | 7 | 2 | 1 | 10 |
| **03** | Bahara | 11 | 7 | 2 | 20 |
| **04** | Chinabari | 6 | 3 | 1 | 10 |
| **05** | Cholagara | 7 | 2 | 1 | 10 |
| **06** | Rangametia | 15 | 3 | 2 | 20 |
| **07** | Satkhulia | 5 | 3 | 2 | 10 |
| **08** | ShushuniaJamthol | 17 | 2 | 1 | 20 |
| **09** | Shushania Parasibana | 7 | 2 | 1 | 10 |
| **10** | Siuli Pahari | 6 | 2 | 2 | 10 |
| | **Total Respondents** | **89 (68.46%)** | **27 (20.77%)** | **14 (10.77%)** | **130 (100%)** |

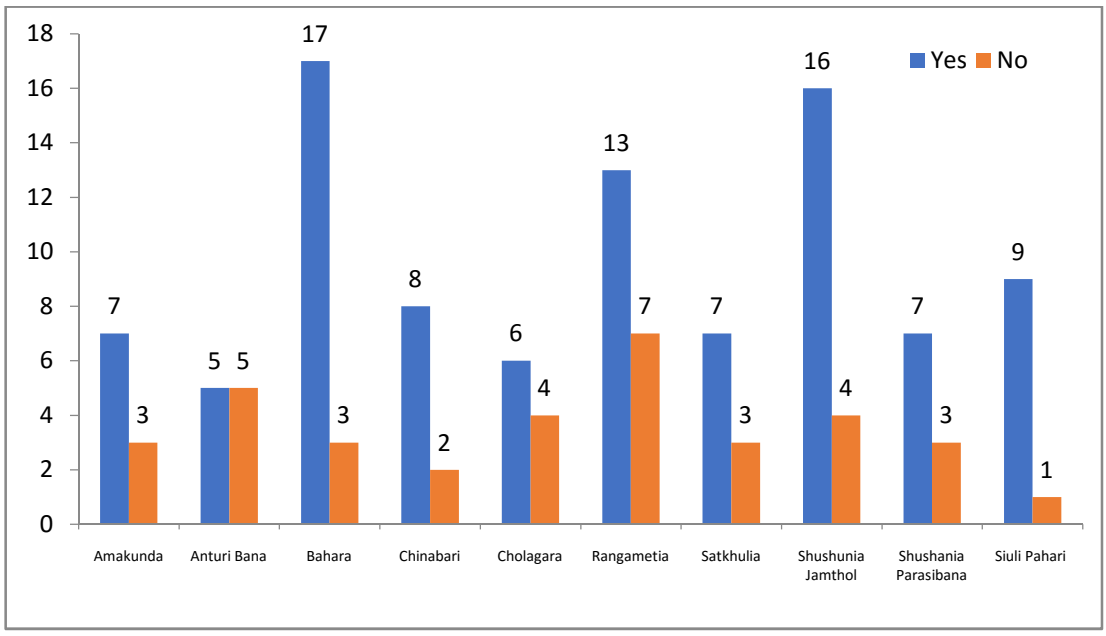



From the above table the present researcher has found that out of 130 (100%) respondents 89(68.46%) respondents have replied that role of all time aged people in case of indigenous medical practices; 27 (20.77%) respondents have replied that role of sometimes aged people in case of indigenous medical practices and 14 (10.77%) respondents have replied that role of does not aged people in case of indigenous medical practices.

Thus, from the above analysis it has been found that the majority 89(68.46%) of respondent has replied that role of aged people at all times in case of indigenous medical practices.

**Table 31: Belief in Supernatural Powers**

| Sl. No. | Village Name | Belief In Super Natural Power | | Total |
|---|---|---|---|---|
| | | **Yes** (Ghost/ Witch craft/ Soul / Spirit) | **No** | |
| **01** | Amakunda | 7 | 3 | 10 |
| **02** | Anturi Bana | 5 | 5 | 10 |
| **03** | Bahara | 17 | 3 | 20 |
| **04** | Chinabari | 8 | 2 | 10 |
| **05** | Cholagara | 6 | 4 | 10 |
| **06** | Rangametia | 13 | 7 | 20 |
| **07** | Satkhulia | 7 | 3 | 10 |
| **08** | ShushuniaJamthol | 16 | 4 | 20 |
| **09** | Shushania Parasibana | 7 | 3 | 10 |
| **10** | Siuli Pahari | 9 | 1 | 10 |
| | **Total Respondents** | **95 (70.08%)** | **35 (26.92%)** | **130 (100%)** |

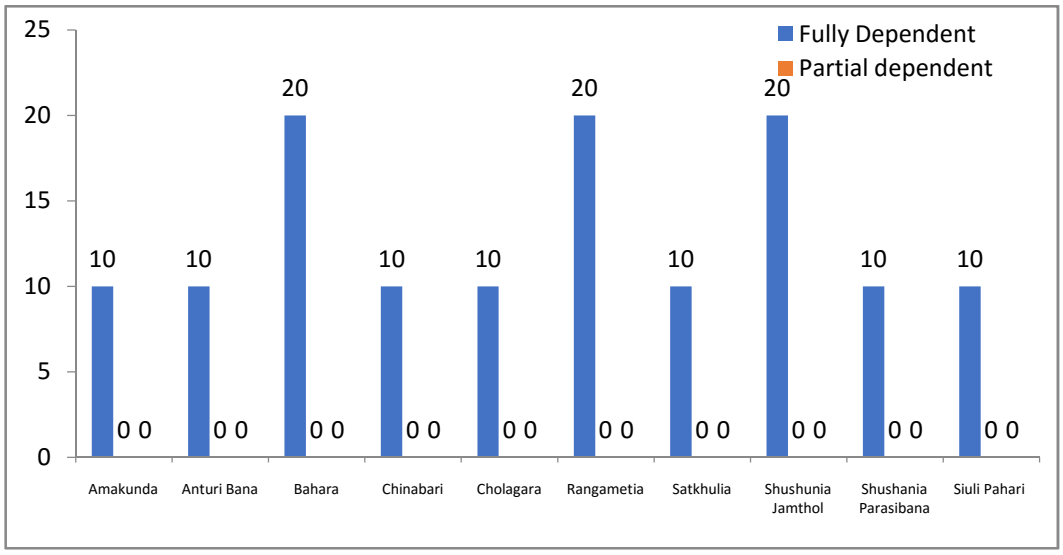



From the above table the present researcher has found that out of 130 (100%) respondents 95 (73.08%) respondents have replied that they believe in supernatural power like Ghost / Witchcraft/ Soul/Spirit and 35 (26.92%) respondents have replied that they are do not believe in any kind of supernatural power.

Thus, from the above analysis the present researcher has found that the majority 95(73.08%) of the respondents have replied that they believe in supernatural powers like Ghost / Witchcraft/ Soul/Spirit.

**Table 32: Tribal social life dependants on Religion**

| Sl. No. | Village Name | Tribal Social Life depend on Religion | | | Total |
|---|---|---|---|---|---|
| | | Fully Dependent | Partial dependent | Not Dependent | |
| **01** | Amakunda | 10 | - | - | 10 |
| **02** | Anturi Bana | 10 | - | - | 10 |
| **03** | Bahara | 20 | - | - | 20 |
| **04** | Chinabari | 10 | - | - | 10 |
| **05** | Cholagara | 10 | - | - | 10 |
| **06** | Rangametia | 20 | - | - | 20 |
| **07** | Satkhulia | 10 | - | - | 10 |
| **08** | ShushuniaJamthol | 20 | - | - | 20 |
| **09** | Shushania Parasibana | 10 | - | - | 10 |
| **10** | Siuli Pahari | 10 | - | - | 10 |
| | **Total Respondents** | **130 (100%)** | **00 (00%)** | **00 (00%)** | **130 (100%)** |

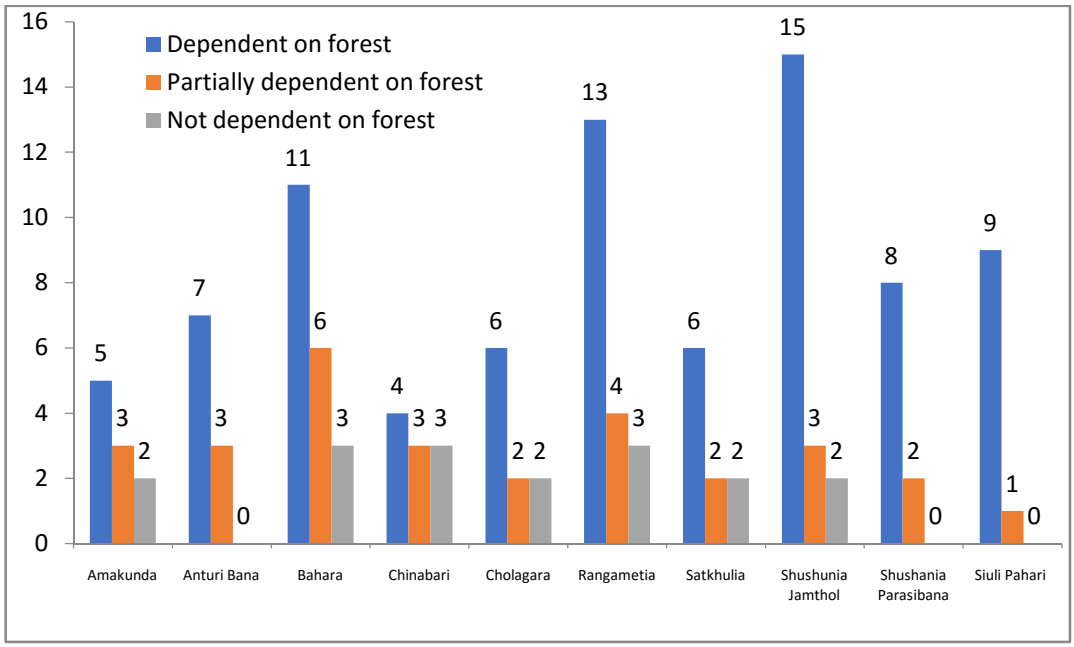



From the above table the present researcher has found that out of 130 (100%) respondents, 130 (130%) respondents have replied that tribal social life is fully dependent on religion, no one said that tribal social life is partially dependent on religion and non one said that tribal social life is not dependent on religion.

Thus, from the above analysis the present researcher has found that the majority 130(100%) opined that tribal social life is dependant on religion.

**Table 33: Relationship between forest and tribals**

| Sl. No. | Village Name | Dependent on forest | Partially dependent on forest | Not dependent on forest | Total % |
|---|---|---|---|---|---|
| **01** | Amakunda | 5 | 2 | 3 | 10 |
| **02** | Anturi Bana | 7 | 3 | - | 10 |
| **03** | Bahara | 11 | 6 | 3 | 20 |
| **04** | Chinabari | 4 | 3 | 3 | 10 |
| **05** | Cholagara | 6 | 2 | 2 | 10 |
| **06** | Rangametia | 13 | 4 | 3 | 20 |
| **07** | Satkhulia | 6 | 2 | 2 | 10 |
| **08** | ShushuniaJamthol | 15 | 3 | 2 | 20 |
| **09** | Shushania Parasibana | 8 | 2 | - | 10 |
| **10** | Siuli Pahari | 9 | 1 | - | 10 |
| | **Total Respondents** | **84 (64.62%)** | **28 (21.51%)** | **18 (13.84%)** | **130 (100%)** |

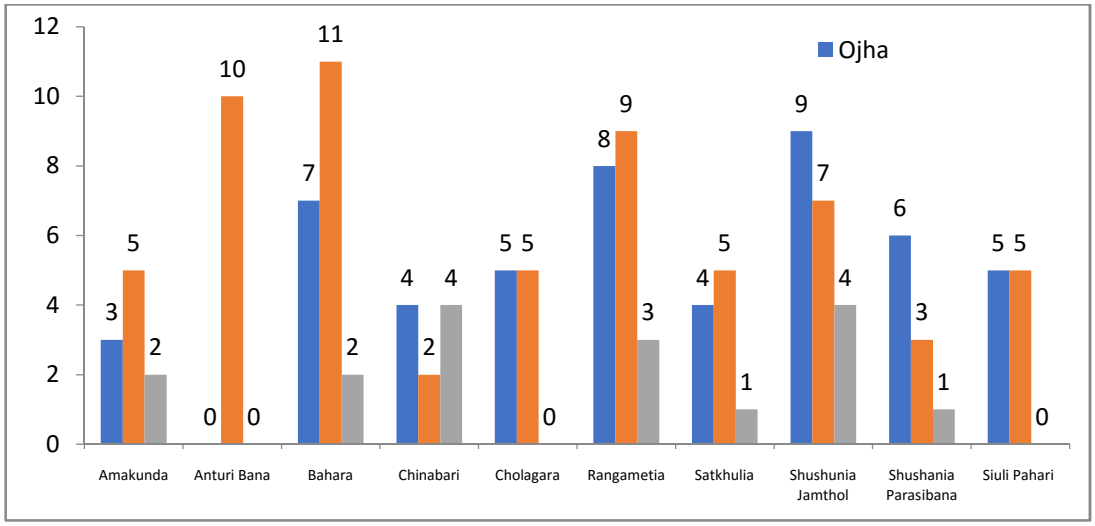



From the above table the present researcher has found that out of 130 (100%) respondents, 84 (654.62%) respondents have replied that they are depend on forest, 28 (21.54%) respondents have replied that they are partially depend on the forest and 18 (13.84%) respondents have replied that they are not depend on forest.

Thus, from the above analysis the present researcher has found that the majority 84(64.62%) of the respondents have replied that they are depend on the forest.

**Table 34: Traditional Healers**

| Sl. No. | Village Name | Traditional Healer | | None | Total |
|---|---|---|---|---|---|
| | | Ojha | Kabiraj / medicine man | | |
| **01** | Amakunda | 3 | 5 | 2 | 10 |
| **02** | Anturi Bana | - | 10 | - | 10 |
| **03** | Bahara | 7 | 11 | 2 | 20 |
| **04** | Chinabari | 4 | 2 | 4 | 10 |
| **05** | Cholagara | 5 | 5 | - | 10 |
| **06** | Rangametia | 8 | 9 | 3 | 20 |
| **07** | Satkhulia | 4 | 5 | 1 | 10 |
| **08** | ShushuniaJamthol | 9 | 7 | 4 | 20 |
| **09** | Shushania Parasibana | 6 | 3 | 1 | 10 |
| **10** | Siuli Pahari | 5 | 5 | - | 10 |
| | **Total Respondents** | **51 (39.23%)** | **62 (47.69%)** | **17 (13.08%)** | **130 (100%)** |

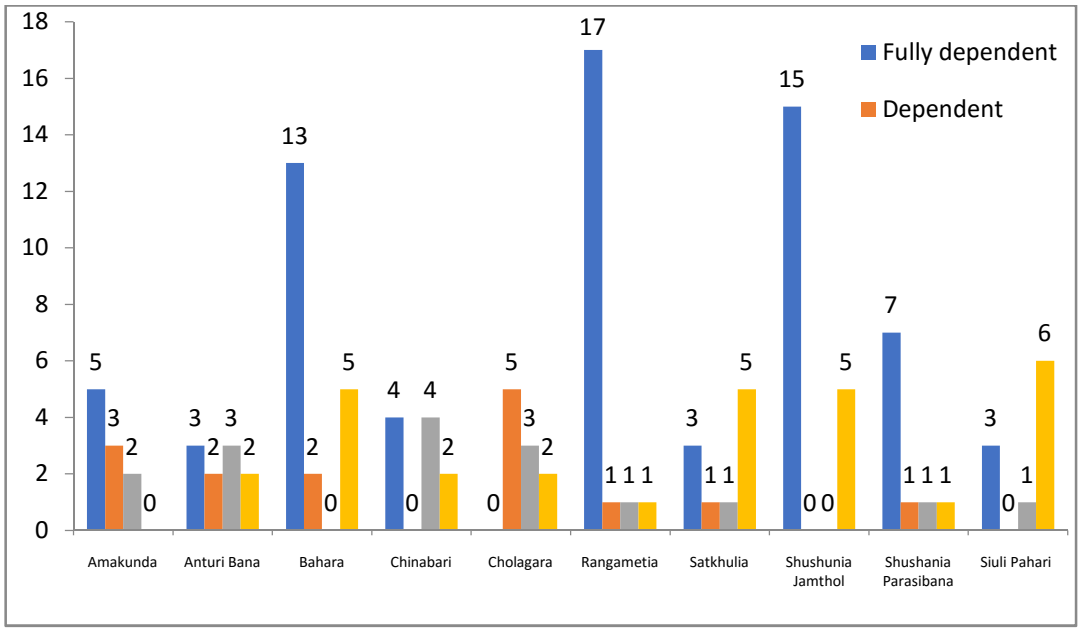



From the above table the present researcher has found that out of 130 (100%) respondents, 51 (39.23%) respondents approach the Ojha for medical treatment; 62 (47.69%) respondents approach the 'Kabiraj' or medicine man for medical treatment and 17 (13.08%) respondents approach no such medicine man or traditional healer for treatment.

Thus, from the above analysis, it has been found that majority **62(39.23%)** of the respondents approach the 'Kabiraj' or medicine man for ill health treatment.

**Table 35: At 21st century the tribals still belief on traditional medical practices**

| Sl. No. | Village Name | Fully dependent | Dependent | Partially dependent | Not dependent | Total |
|---|---|---|---|---|---|---|
| 01 | Amakunda | 5 | 3 | 2 | - | 10 |
| 02 | Anturi Bana | 3 | 2 | 3 | 2 | 10 |
| 03 | Bahara | 13 | 2 | - | 5 | 20 |
| 04 | Chinabari | 4 | - | 4 | 2 | 10 |
| 05 | Cholagara | - | 5 | 3 | 2 | 10 |
| 06 | Rangametia | 17 | 1 | 1 | 1 | 20 |
| 07 | Satkhulia | 3 | 1 | 1 | 5 | 10 |
| 08 | ShushuniaJamthol | 15 | - | - | 5 | 20 |
| 09 | Shushania Parasibana | 7 | 1 | 1 | 1 | 10 |
| 10 | Siuli Pahari | 3 | - | 1 | 6 | 10 |
| | **Total Respondent** | **70 (53.84%)** | **15 (11.54%)** | **16 (12.31%)** | **29 (22.31%)** | **130 (100%)** |

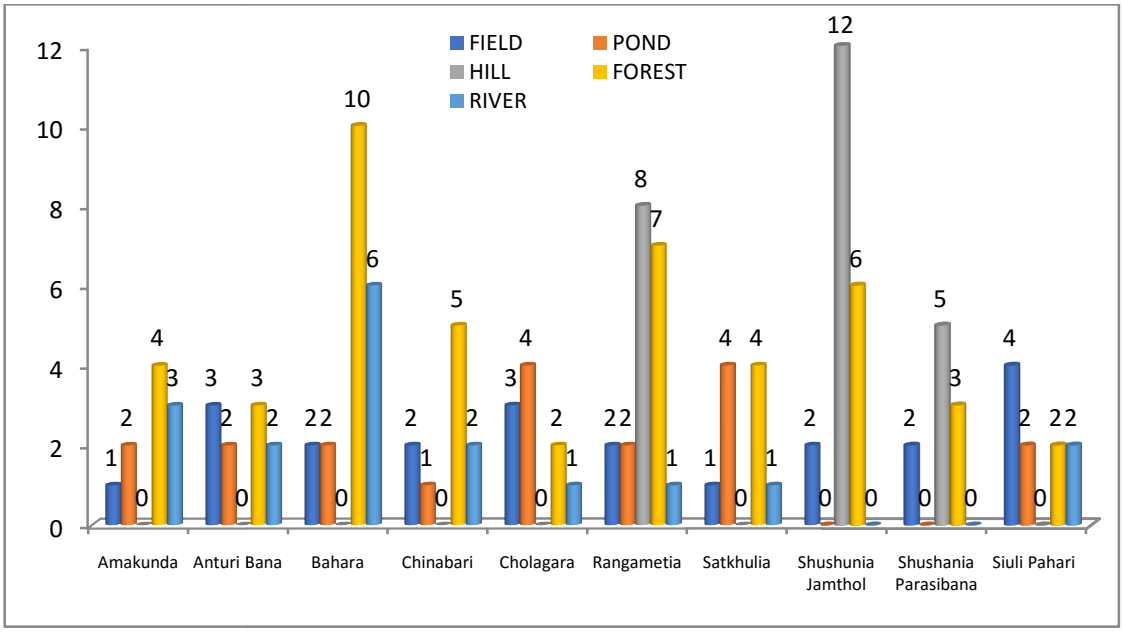



From the above table the present researcher has found that out of 130 (100%) respondents 70 (53.84%) respondent have replied that at 21st century they are fully dependent on traditional medical practices; 15 (11.54%) respondents have replied that at 21st century they are dependent on traditional medical practices; 16 (12.31%) respondents have replied that at 21st century they are partially dependent on traditional medical practices; 29 (22.31%) respondents have replied that at 21st century they are not dependent on traditional medical practices.

Thus, from the above analysis it has been found that the majority 70(53.84%) respondent has replied that at 21st century they are fully dependent on traditional medical practices.

**Table 36: Collection of Traditional Medicine**

| Sl. | Village Name | FIELD | POND | HILL | FOREST | RIVER | TOTAL |
|---|---|---|---|---|---|---|---|
| **01** | Amakunda | 1 | 2 | - | 4 | 3 | 10 |
| **02** | Anturi Bana | 3 | 2 | - | 3 | 2 | 10 |
| **03** | Bahara | 2 | 2 | - | 10 | 6 | 20 |
| **04** | Chinabari | 2 | 1 | - | 5 | 2 | 10 |
| **05** | Cholagara | 3 | 4 | - | 2 | 1 | 10 |
| **06** | Rangametia | 2 | 2 | 8 | 7 | 1 | 20 |
| **07** | Satkhulia | 1 | 4 | - | 4 | 1 | 10 |
| **08** | ShushuniaJamthol | 2 | - | 12 | 6 | - | 20 |
| **09** | Shushania Parasibana | 2 | - | 5 | 3 | - | 10 |
| **10** | Siuli Pahari | 4 | 2 | - | 2 | 2 | 10 |
| | **Total Respondents** | **22 (16.92%)** | **19 (14.62%)** | **25 (19.23%)** | **46 (35.38%)** | **18 (13.85%)** | **130 (100%)** |




From the above table the present researcher has found that out of 130 (100%) respondents, 22 (16.92%) respondents collect traditional medicine from field; 19 (14.62%) respondents collect from pond; 25 (19.23%) respondents collect from hill; 46 (35.38%) respondents collect from forest and 18 (13.85%) respondents collect from river.

Thus, from the above analysis it has been found that majority **46(35.38%)** of the respondents collect traditional medicines from the forest.

**Table 37: Methods of preserving Indigenous medicines**

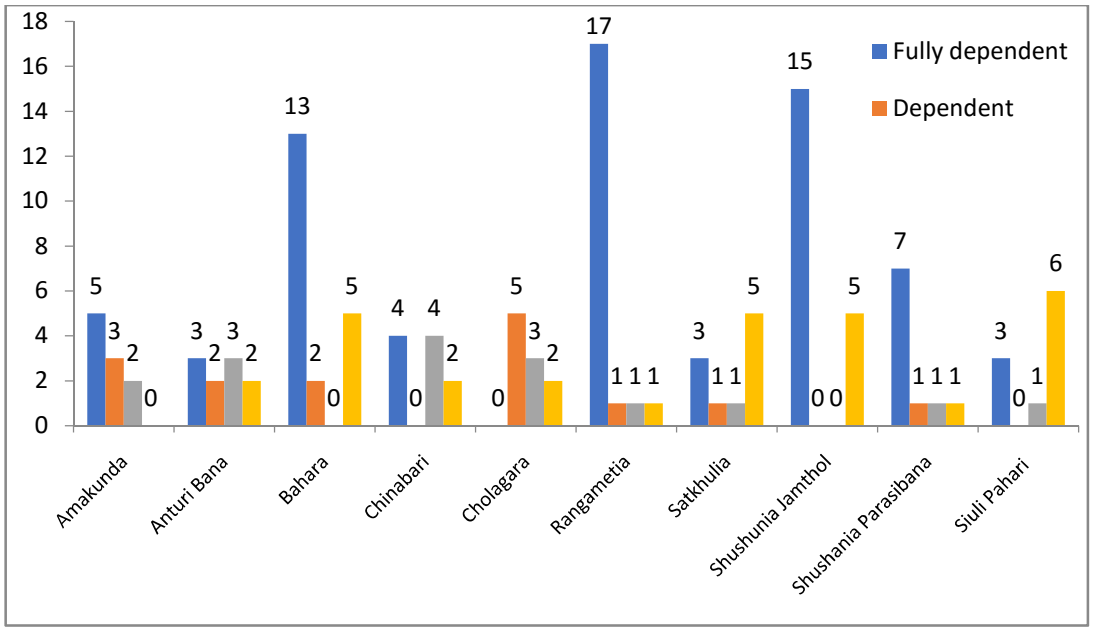
| Sl. | Village Name | DRY | PASTE | DUST | DIPPED IN OIL | VACUUM PACKING | TOTAL |
|---|---|---|---|---|---|---|---|
| **01** | Amakunda | 3 | 1 | 2 | 1 | 3 | 10 |
| **02** | Anturi Bana | 5 | 0 | 1 | 0 | 4 | 10 |
| **03** | Bahara | 4 | 3 | 4 | 5 | 4 | 20 |
| **04** | Chinabari | 5 | 0 | 3 | 0 | 2 | 10 |
| **05** | Cholagara | 6 | 0 | 1 | 0 | 3 | 10 |
| **06** | Rangametia | 3 | 2 | 2 | 7 | 6 | 20 |
| **07** | Satkhulia | 2 | 2 | 2 | 2 | 2 | 10 |
| **08** | ShushuniaJamthol | 3 | 5 | 2 | 9 | 1 | 20 |
| **09** | Shushania Parasibana | 3 | 2 | 2 | 0 | 3 | 10 |
| **10** | Siuli Pahari | 3 | 0 | 3 | 0 | 4 | 10 |
| | **Total Respondents** | **37 (28.46%)** | **15 (11.54%)** | **22 (16.92%)** | **24 (18.46%)** | **32 (24.62%)** | **130 (100%)** |

From the above table the present researcher has found that out of 130 (100%) respondents, 37 (28.46%) respondents apply the method of drying the ingredients for preserving indigenous medicines; 15 (11.54%) of respondents make paste of ingredients for preserving indigenous medicines; 22 (16.92%) of respondents make dust of ingredients for preserving indigenous medicines;24 (18.46%) of respondents dip in oil for preserving indigenous medicines; 32 (24.62%) of respondents go for vacuum packing to preserve ingredients of indigenous medicines.

Thus, from the above analysis, it has been found that most 37(28.46%) of the respondents apply the method of drying for preserving indigenous medicines.

**Table 38: Use of Indigenous Medicine in daily lives by Young people**

| Sl. No. | Village Name | All Time | Many Time | Some Time | Never | Total |
|---|---|---|---|---|---|---|
| **01** | Amakunda | 5 | - | 2 | 3 | 10 |
| **02** | Anturi Bana | 4 | 2 | 2 | 2 | 10 |
| **03** | Bahara | 7 | 3 | 3 | 7 | 20 |
| **04** | Chinabari | 6 | - | 2 | 2 | 10 |
| **05** | Cholagara | 3 | - | 2 | 5 | 10 |
| **06** | Rangametia | 9 | 1 | 3 | 7 | 20 |
| **07** | Satkhulia | 3 | 2 | 2 | 3 | 10 |
| **08** | ShushuniaJamthol | 9 | - | 2 | 9 | 20 |
| **09** | Shushania Parasibana | 8 | - | - | 2 | 10 |
| **10** | Siuli Pahari | - | 7 | - | 3 | 10 |
| | **Total Respondents** | **54 (41.53%)** | **15 (11.54%)** | **18 (13.85%)** | **43 (33.08%)** | **130(100%)** |

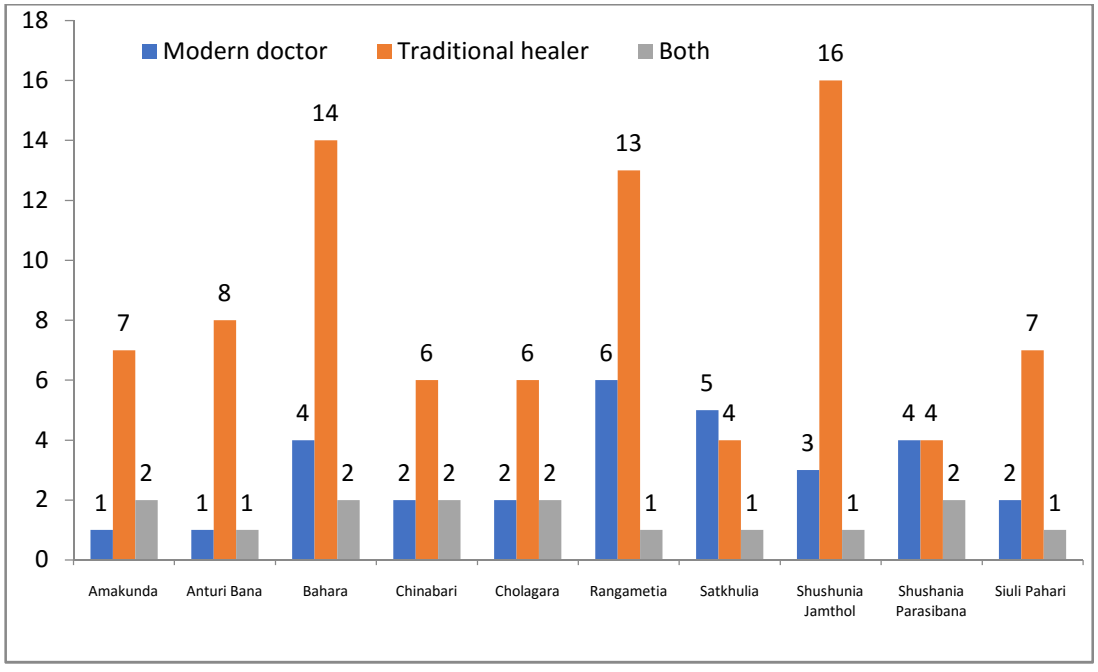



From the above table the present researcher has found that out of 130 (100%) respondents; 54 (41.53%) respondents have replied that young people use all time indigenous medicine in their daily lives; 15 (11.54%)respondents have replied that young people use many time indigenous medicine in their daily lives; 18 (13.85%) respondents have replied that young people use some time indigenous medicine in their daily lives and 43 (33.08%) respondents have replied that young people use does not indigenous medicine in their daily lives.

Thus, from the above analysis the present researcher has found that the majority 54(41.53%) of the respondents have replied that young people use all time indigenous medicine in their daily lives.

**Table 39: Modern Doctor & Traditional Healer**

| Sl. No. | Village Name | Modern doctor | Traditional healer | Both | Total % |
|---|---|---|---|---|---|
| **01** | Amakunda | 1 | 7 | 2 | 10 |
| **02** | Anturi Bana | 1 | 8 | 1 | 10 |
| **03** | Bahara | 4 | 14 | 2 | 20 |
| **04** | Chinabari | 2 | 6 | 2 | 10 |
| **05** | Cholagara | 2 | 6 | 2 | 10 |
| **06** | Rangametia | 6 | 13 | 1 | 20 |
| **07** | Satkhulia | 5 | 4 | 1 | 10 |
| **08** | ShushuniaJamthol | 3 | 16 | 1 | 20 |
| **09** | Shushania Parasibana | 4 | 4 | 2 | 10 |
| **10** | Siuli Pahari | 2 | 7 | 1 | 10 |
| | **Total Respondents** | **30 (23.08%)** | **85 (65.38%)** | **15 (11.54%)** | **130 (100%)** |

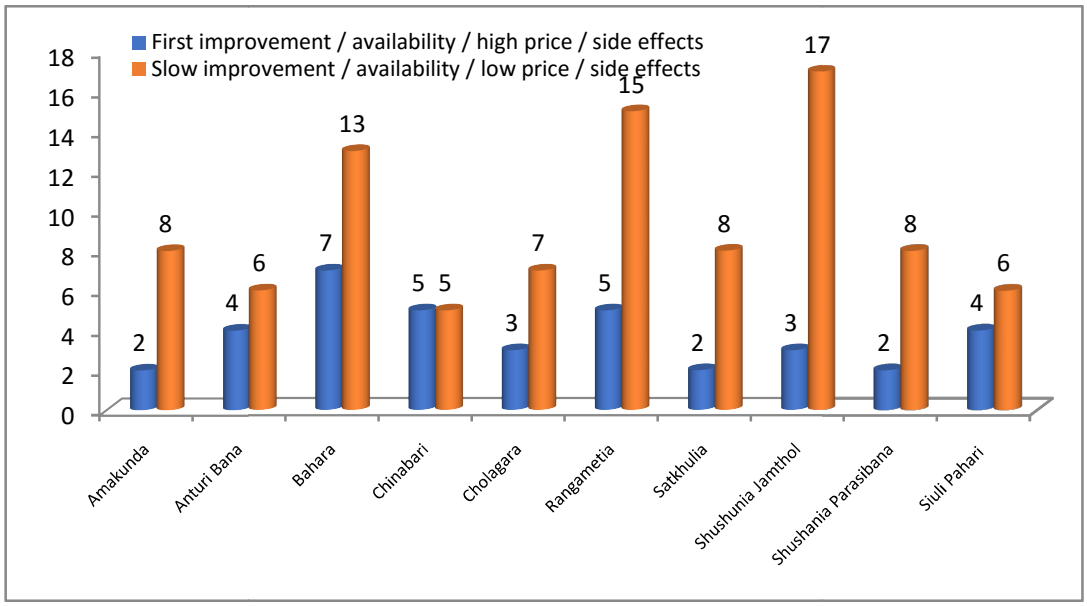



From the above table the present researcher has found that out of 130 (100%) respondents, 30 (23.08%) respondents seek for the modern doctor for medicinal help; 85 (65.38%) respondents seek for the traditional healer for medicinal help and 15 (11.54%) respondents seek for both medicinal help.

Thus, from the above analysis the present researcher has found that the majority 85(65.38%) of respondents visit to traditional healers for medicinal help.

**Table 40: Tribal belief in indigenous medicine versus modern medicine**

| Sl. | Village Name | Modern medicine | Indigenous medicine | Total |
|---|---|---|---|---|
| | | Fast improvement / availability / high price / side effects | Slow improvement / availability / low price / noside effects | |
| **01** | Amakunda | 2 | 8 | 10 |
| **02** | Anturi Bana | 4 | 6 | 10 |
| **03** | Bahara | 7 | 13 | 20 |
| **04** | Chinabari | 5 | 5 | 10 |
| **05** | Cholagara | 3 | 7 | 10 |
| **06** | Rangametia | 5 | 15 | 20 |
| **07** | Satkhulia | 2 | 8 | 10 |
| **08** | ShushuniaJamthol | 3 | 17 | 20 |
| **09** | Shushania Parasibana | 2 | 8 | 10 |
| **10** | Siuli Pahari | 4 | 6 | 10 |
| | **Total Respondents** | **37 (28.46%)** | **93 (71.54%)** | **130 (100%)** |

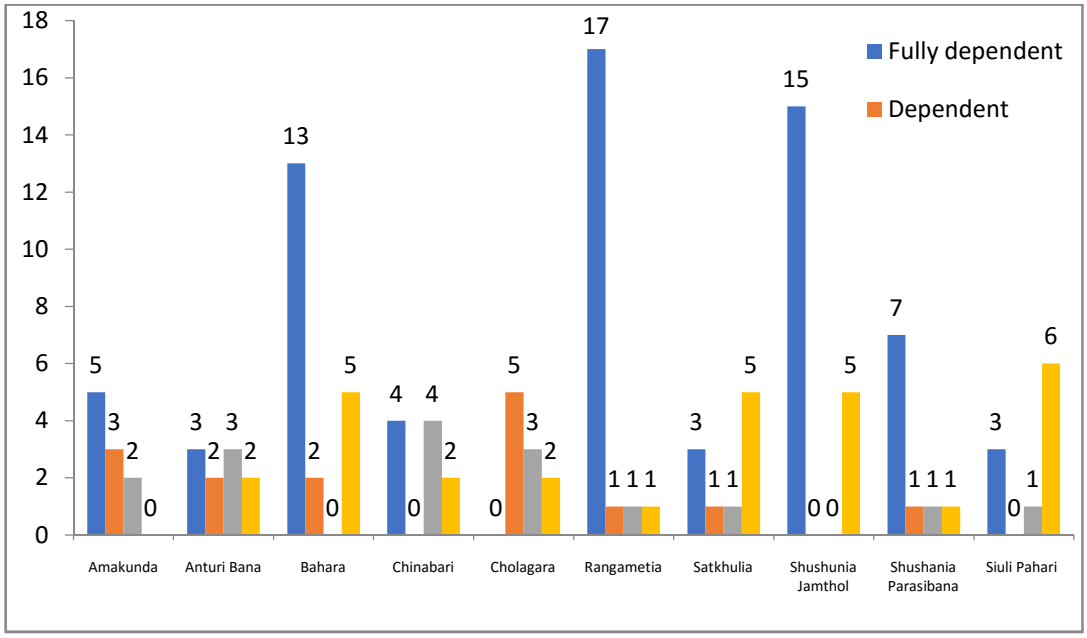



From the above table the present researcher has found that out of 130 (100%) respondents, 37(28.46%) respondents believe in modern medicine with fast improvement availability/ high price/ side effects and 93 (41.54%) respondents believe in traditional medicine with slow improvement/ availability/ low price/ side effects.

Thus, from above analysis it has been found that most **93(71.54%)** respondents believe in traditional medicine with slow improvement, availability, low price, less side effects.

**Table 41: In 21st century, dependence of villagers on traditional medical practices**

| Sl. No. | Village Name | Fully dependent | Dependent | Partially dependent | Not dependent | Total |
|---|---|---|---|---|---|---|
| **01** | Amakunda | 5 | 3 | 2 | - | 10 |
| **02** | Anturi Bana | 3 | 2 | 3 | 2 | 10 |
| **03** | Bahara | 13 | 2 | - | 5 | 20 |
| **04** | Chinabari | 4 | - | 4 | 2 | 10 |
| **05** | Cholagara | - | 5 | 3 | 2 | 10 |
| **06** | Rangametia | 17 | 1 | 1 | 1 | 20 |
| **07** | Satkhulia | 3 | 1 | 1 | 5 | 10 |
| **08** | ShushuniaJamthol | 15 | - | - | 5 | 20 |
| **09** | Shushania Parasibana | 7 | 1 | 1 | 1 | 10 |
| **10** | Siuli Pahari | 3 | - | 1 | 6 | 10 |
| | **Total Respondents** | **70 (53.84%)** | **15 (11.54%)** | **16 (12.31%)** | **29 (22.31%)** | **130 (100%)** |

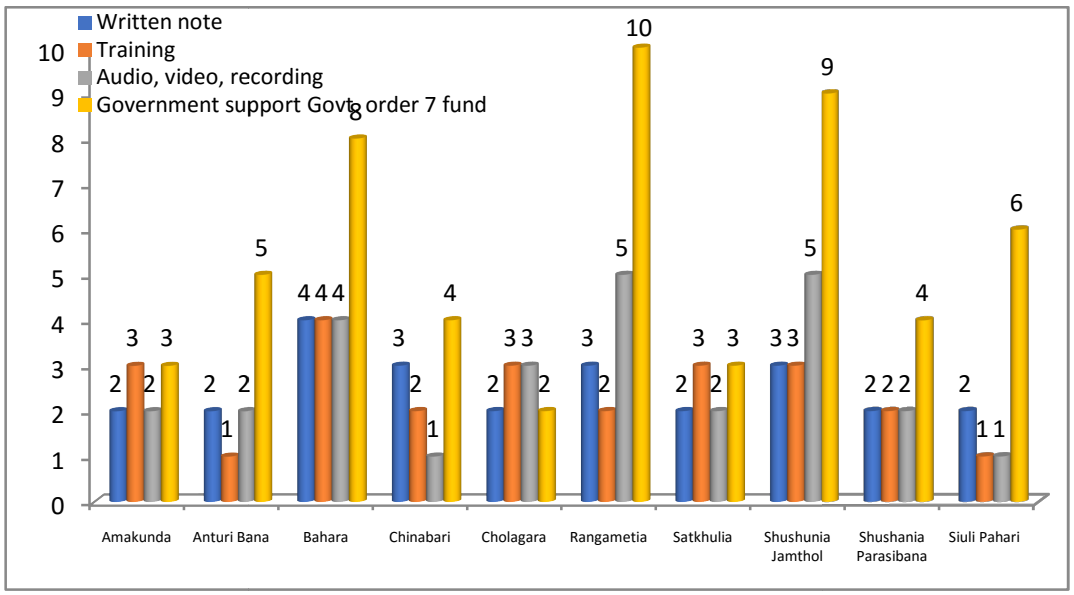



From the above table the present researcher has found that out of 130 (100%) respondents 70 (53.84%) respondents have replied that at 21st century they are fully dependent on traditional medical practices; 15 (11.54%) respondents have replied that at 21st century they are dependent on traditional medical practices; 16 (12.31%) respondents have replied that at 21st century they are partially dependent on traditional medical practices; 29 (22.31%)respondents have replied that at 21st century they are not dependent on traditional medical practices.

Thus, from the above analysis the present researcher has found that the majority of the 70(53.84%) respondents have replied that at 21st century they are fully dependent on traditional medical practices.

**Table 42: Indigenous Medical Practice Explored the World**

| Sl. | Village name | Written note | Training | Audio, video, recording | Government support Govt. order 7 fund | Total |
|---|---|---|---|---|---|---|
| **01** | Amakunda | 2 | 3 | 2 | 3 | 10 |
| **02** | Anturi Bana | 2 | 1 | 2 | 5 | 10 |
| **03** | Bahara | 4 | 4 | 4 | 8 | 20 |
| **04** | Chinabari | 3 | 2 | 1 | 4 | 10 |
| **05** | Cholagara | 2 | 3 | 3 | 2 | 10 |
| **06** | Rangametia | 3 | 2 | 5 | 10 | 20 |
| **07** | Satkhulia | 2 | 3 | 2 | 3 | 10 |
| **08** | ShushuniaJamthol | 3 | 3 | 5 | 9 | 20 |
| **09** | Shushania Parasibana | 2 | 2 | 2 | 4 | 10 |
| **10** | Siuli Pahari | 2 | 1 | 1 | 6 | 10 |
| | **Total Respondents** | **25 (19.23%)** | **24 (18.46%)** | **27 (20.77%)** | **54 (41.54%)** | **130 (100%)** |




From the above table the present researcher has found that out of 130 (100%) respondents, 25 (19.23%) respondents have gone for written note; 24 (18.46%) respondents go for training; 27 (20.77%) respondents gone for audio, video recording and 54 (41.54%) respondents went for government support/ government order 7 fund.

Thus, from above analysis it has been found that most of the 54(41.54%) respondents took government support or government order / fund to explore indigenous medicine around the world.

# CHAPTER – 6
# SUMMARY OF FINDINGS , CONCLUSION AND SUGGESTIONS

# Summary of Findings

The present study is titled **"Indigenous Medical Practices among tribes: A Sociological Study in Bankura district of West Bengal".** The present study is primarily based on data relating to tribal inhabitants of ten villages of Chhatna Community development block of Bankura district. The study predominates on the use, preservation and protection of indigenous medicines and various medical practices used in treatment of Santal Adivasis.

The research work was conducted among the Santals families of the villages of Chhatna. The research has revealed some interesting facts about indigenous medical practices among the tribes of Bankura district.

The related findings of study are:

**Table 01:**The research work depicts that the total population of villages is 8168 out of which male population is 4153 and female population is 4015.

**Table 02:** The research work depicts that the majority **36(28%)** of respondents is within age group 70>.

**Table 03:** The research work depicts that majority **71(54.62%)** of the respondents population is female.

**Table 04:** The research work depicts that the majority **(3231)** of the population is scheduled tribe.

**Table 05:** The research work depicts that all **130(100%)** the respondents are Hindu by religion.

**Table 06:** The research work depicts that the majority **77(59.23%)** of the respondents are illiterate.

**Table 07:** The research work depicts that all **130(100%)** respondents have not migrated.

**Table 08:** The research work depicts that the majority **39(30%)**of respondents are daily labourers.

**Table 09:** The research work depicts that the majority **29(22.31%)** of the respondents' daily income is within the range of Rs. 2001-4000.

**Table 10:** The research work depicts that the majority **67(51.54%)** of the respondents carry voter cards as their ID cards.

**Table 11:** The research work depicts that the majority **85(65.38%)** of the respondents are provided with domestic fuel or Ujjawala gas as government facilities.

**Table 12:** The research work depicts that the majority **71(54.62%)** of the respondents cannot avail the safe drinking water in their villages.

**Table 13:** The research work depicts that the majority **87(66.92%)** of the respondents have no proper sanitary system.

**Table 14:** The research work depicts that the majority **130(100%)** of the respondents have been provided with government health care facilities like 'Swastha Sathi card'.

**Table 15:** The research work depicts that majority **73(56.15%)** of respondents disagree with the fact that there is no health centre in their locality / community.

**Table 16:** The research work depicts that the majority **39(30%)** of the respondents suffer from gynaecological problem.

**Table 17:** The research work depicts that the majority **102(78.43%)** of the respondents have not suffered from serious illness for 10 or more than 10 years.

**Table 18:** The research work depicts that the majority **130(100%)** of the respondents are not affected by Covid-19 pandemic.

**Table 19:** The research work depicts that the majority **70(53.85%)** of the respondents have undergone indigenous treatment during illness.

**Table 20:** The research work depicts that the majority **70(53.84%)** of the respondents neither visited to any modern doctor nor undergone any modern treatment.

**Table 21:** The research work depicts that the majority **93(71.54%)** of the respondents have not undergone any modern treatment after snake bite.

**Table 22:** The research work depicts that the majority **68(52.31%)** of the respondents think that diseases are caused by supernatural causes.

**Table 23:** The research work depicts that that majority **93(71.54%)** of the respondents strongly believe in indigenous medical practices.

**Table 24:** The research work depicts that the majority **98(75.38%)** of the respondents follow traditional medical practices regarding any diseases or illness.

**Table 25:** The research work depicts that the majority **75(57.69%)** of the respondents are fully cured by practising indigenous medical system.

**Table 26:** The research work depicts that the majority **43(33.08%)** of the respondents tie sacred threads on arms, around neck or waist etc. as one of rules and regulations.

**Table 27:** The research work depicts that the majority **92(70.77%)** of the respondents consider that music therapy acts as a way of medical treatment.

**Table 28:** The research work depicts that the majority **130(100%)** of the respondents consider music as a part of daily routine.

**Table 29:** The research work depicts that the majority **79(60.77%)** of the respondents consider dance therapy act as a way of medical treatment.

**Table 30:** The research work depicts that majority **89(68.46%)** of the respondents consider that for all time the role of aged people in case of indigenous medical practices.

**Table 31:** The research work depicts that the majority **95(73.08%)** of the respondents' believe in supernatural powers like ghost, witch, soul or spirit.

**Table 32:** The research work depicts that the majority **130(100%)** of the respondents think that tribals' social life is fully dependent on religion.

**Table 33:** The research work depicts that the majority **84(64.62%)** of the respondents think that tribals have relationship with the forest as they are fully dependent.

**Table 34:** The research work depicts that the majority **62(39.23%)** of the respondents' approach the 'Kabiraj' or medicine man during illness.

**Table 35:** The research work depicts that the majority **70(53.84%)** of the respondents think that tribals still believe in indigenous medical practices at $21^{st}$ century.

**Table 36:** The research work depicts that the majority **46(35.38%)** of the respondents collect traditional medicines from forest.

**Table 37:** The research work depicts that the majority **37(28.46%)** of the respondents apply the method of drying for preservation of indigenous medicines.

**Table 38:** The research work depicts that the majority **54(41.53%)** of the respondents replied that young people use indigenous medicine in their daily lives.

**Table 39:** The research work depicts that the majority **85(65.38%)** of the respondents visit traditional healers for medicinal help.

**Table 40:** The research work depicts that the majority **93(71.54%)** of respondents believe in traditional medicine for slow improvement, availability, low price, less side effects.

**Table 41:** The research work depicts that the majority **70(53.84%)** of the respondents think that villagers are fully dependent on traditional medical practices even during the 21$^{st}$ Century.

**Table 42:** The research work depicts that the majority **54(41.54%)** of the respondents took government support to explore indigenous medicine around the world.

# CONCLUSION

Tribals must be revered as they are the original inhabitants. They depend on almost all natural resources for their livelihood and sustenance. Tribals live in groups and modern forces have been moulding their life. Their culture is dynamic Tribals have faced changes in their cultural aspects of life. The tribes have retained principal elements of their ways of life though they are modified to more or less extent. The traditional process characterized by impact of traditions of major neighbouring communities on tribals has been in operation and led to resultant concepts. The modern process includes processes like tribal development and community development schemes. The democratic set-up of nation, modernization in education, communication and administration are of more recent origin and directly or indirectly external factors do not emerge as a result of normal contacts of tribalswith non-tribals of the area. Tribes especially the Oraon, Santal, Munda, Bhil and Gond have been influenced by Hindu neighbours and taken advantage of community development programmes and accepted use of improved seeds, fertilizers and introduction of cash crops. The health programmes with introduction of modern medicines are less popular in less isolated villages.

With formation of Indian Republic Constitution some tribal voters in accessible areas are approached by leaders of various types and are exposed to their views, promises and aspirations. A new set of Western educated, urban bred and secularized type of tribal leaders is replaced by age-old charismatic, rural-bred and tradition-oriented leadership. The modern leaders are spearheading the socio-economic and political change and during the last two decades have been instrumental in accelerating the pace of transformation in tribal areas. Despite the tribals politically have behaved in their traditional style in groups with kin feelings, village feelings and regional feelings and new democratic experiments have given impetus to these feelings. The impact of urbanization and industrialization on tribal culture have brought revolutionary changes in parts of tribal India. Since last 60 years, the pace of mining and manufacturing industries and exploitation of power and forest resources have greatly accelerated in hilly and forested belts of tribal areas.

The tribals were mainly agricultural and were up-rooted and had to face manifest problems. The pivotal problem was an alternative place for rehabilitation and alternative occupation to

earn their livelihood. These families were given compensation as they faced numerous social problems, cultural crisis, economic disorganization and social disintegration. Socio-economic conditions reveals that traditional agricultural economy continues to be intact at the initial stage. They accepted industrial work as subsidiary occupation. The younger generation is not attracted to industrial work in large numbers. The industrial affected villages show evidences of agricultural work combined with few industrial jobs. The process of industrialization has not affected the traditional core of social structure of neighbouring villages. Some of the villagers had to leave their home temporarily. Their sense of oneness in family organization has been affected. The social customs, religious beliefs and practices reflect minimum transformation. The religious institutions of tribals coexist and annual festivals and celebrations are joined by all castes and tribes and are more integrated.

**Changes due to Industrialization:**

The impact of industrialization on tribal and non-tribal villages seems to be less disruptive. The pace of social and economic transformation has been accelerated and the choice is left with tribals to be selective in combining values of two worlds, the rural, industrial, traditional and modern. All the above factors have brought significant changes in tribal areas but the rate of change differs in different types of tribal culture and at some points of time in cultural continuum. The unevenness of social change has been mainly owing to differential preparedness on part of respective tribes to accept and use opportunities available to them from pre-independence time and after independence. The tribes in parts of India, are passing through an accelerated phase of transformation and equilibrium in traditional society has been disturbed. A transition phase marked the meeting of traditional and modern worlds. Despite the universal modernizing process in operation, it is found that tribals continue to respond and change differently and one can identify the variety of tribal culture in changed forms.

Due to industrialization the fast disappearance of traditional cultures and natural resources have arisen in Santal community. The Santals' traditional health care practices are gradually getting replaced by the modern health care practices. Their own system of health care is being replaced by state-sponsored hospitals and primary health care centres. Nowadays, Santals are preferring to go to the hospital for any type of sickness. Due to industrialization, a modern era has started. They have begun to accept modern medicine for their common ailment. The Government-run health delivery system has been introduced among Santal community. Now the Santals proper to consult the doctor to diagnose their problems and the Santal youth tend

to undermine their cultural beliefs and knowledge based on traditional care. The traditional values, faith and indigenous knowledge of health care system of Santal society are facing serious challenges due to industrialization and migration of youth to the cities. Few old people have knowledge of use of plants for curing some particular diseases. There is an urgent need of documentation because older people are usually the only custodians of such information. It may be lost when traditional cultures collapse with advent of modernisation. Documentation of plant material used in traditional medicine, could well benefit general health care and promote forest conservation and ecological research. Such medical plants could also be incorporated into primary health care as people generally feel safer with indigenous cures and the cost of medicine would be much less.

The socio-cultural and economic factors have affected the lifestyle of the tribals in Chhatna CD Block, but they stick to their religious beliefs and practices through worshipping nature and extracting its organic ingredients, thus utilizing it in preparing medicines for medical treatment. Nowadays, our government has taken up much initiatives. The role of NGOs have extremely helped modifying the lifestyle of tribals. The above institutes have provided local aboriginals with all required food and lodging and medical facilities for healthy, wealthy and sound lifestyle. The government and other organizations are trying their best to bring tribals to the forefront and put them in mainstream section of the society. Despite, all the transformations in cultural pattern and advent of modernization and industrialization, it is concluded that the use and application of indigenous medical practices in treatment of diseases and leading life under natural resources exist full-fledgedly tribals stick to their traditional way regarding healing methods and way of earning sustenance.

Traditionally the use of these plant drugs is in their culture and system, so it is essential to make them aware of the quantitative measure to be taken and the adverse effects of these plants when used in *over* dosage. Therefore, efforts should be made to prepare a plan for the awareness among this community.The use of divergent skills outside of the type of healer, for example, anherbalist's use of blowing treatment, may prove to be very informative of how the traditional medical system works among traditional cultures.Herbalists are very talented healers who conserve much traditional medical knowledge. More in-depth and standardized research should be conducted in order to study their practice more comprehensively.

**There are many reasons for the promotion of traditional medicine:**

- Traditional medicines have intrinsic qualities. So, it needs to be evaluated, given due recognition and developed so as to improve its efficiency, safety and availability and wider application at low cost. They are particularly effective in solving certain cultural health problems.

- Traditional medicine has a holistic approach. It views the man in his totality within a wide ecological spectrum, and of emphasizing the view point that ill health or disease is brought about by an imbalance or disequilibrium, of man in his total ecological system and only by the causative agent and pathogenic evolution.

- Traditionalmedicine is one of the surest means to achieve total health care coverage of the whole population and using acceptable, safe and economically feasible methods (WHO, 1978).

**Major Constraints faced by the Tribal Medicine Men:**

- *Unsecured Livelihood*- One of the major constraints faced by the tribal medicine men is that they are not able toget a secured livelihood out of their earning from healthcare practices. As most of their patients are very poor, and their services are considered communal services, they usually do not charge any money or are paid by any. They consider their healthcare practices primarily as a social service. That is why they have to search for other occupations, such as agricultural work, labour, animal husbandry, collecting and selling of Non-Timber Forest Produces to earn some money. Sometimes the tribal medicine men have to buy the locally not available plants and minerals for making certain medicines. They are expensive for making certain medicines but as people of their own communities are very poor, it is difficult to sell such medicines. Furthermore, they do not have any permission to sell them in the markets of big cities that are also situated far away. In this way, their healthcare practices do not act as an adequate livelihood resource.

- *Lack of Legal Recognition*- Due to patronage of the government towards modern allopathic system the tribal medicine men and other practitioners like snake charmers who heal snake bites feel neglected. No legal recognition has been given to them in

spite of their deep-rooted knowledge on healing practices. Besides, the tribal communities are gradually turning away from their local healthcare facilities. Lack of legal recognition to their health-care practices is also discouraging the tribal medicine meant to adopt these practices as a profession.

- *Unwillingness of the Younger Generation to adopt the practice*- The current western model of education has also failed to impress upon the young tribal people the rationale and logic of the sound traditional healthcare practices adopted by the tribal medicine men. It is very often noticed that the younger generation today look at local health tradition with suspicion and often believe them to be just superstitions and therefore deride the practice of these traditions. Consequently, there is a reduction in the use of home remedies and preventive as well as promotive diets at household level of the local tribes. This has ultimately caused a reduction in the number of tribal medicine men in the tribal areas.

- *Lack of Systematic Documentation*- The tribal medicine men having very low literacy status lack the appropriate skill for documenting their knowledge and practices. As a result of this, they do not possess the ownership right to their healthcare knowledge and practices and thereby face the threat of piracy of their knowledge system.

- *Deforestation*-The local forests and some religiously protected rather inviolate forests are treasure houses of major medicinal plant resources for the tribal medicine men in tribal areas. But massive deforestation in this forest region is an important factor causing ecological degradation as well as depletion of many valuable medicinal plant resources. Some of the plant species like Ashok (Sarakaasoka) and Patalgaruda (Rowlpindiserpentina) have become rare plants and the tribal medicine men have to purchase them from the traders. Non-availability of certain plant species in the village forest compels them to go far away from their habitat to collect the medicinal plant items. This hardship is one of the major stumbling back to the growth of healing practices of the tribal medicine men.

- *Unfavourable Policy*- The existing forest policy restricts the tribal medicine men to collect some important medicinal plant parts and minerals from the reserved forests and especially from forests that have been declared as sanctuaries. Moreover, they

also do not have the legal right to prepare and sell their medicines for commercial purposes since they are not regarded as professionally qualified doctors.

In the concluding part the present researcher tried to reveal some relevant ideas. The main scope of study of this research highlights that we modern people think that tribals' are ignorant and backward and their economic, political, cultural and medical practices are not so, advanced, but this perception is absolutely wrong on this study the present researcher has found that their institutional practices and even medical practices are so, advance in nature because for their treatment their using herbs, shrubs very scientifically. They are very experienced about the process of making herbal medicine and they know well how to use herbal plants properly. These practices have been continued from ancient period and these ethno-medical practices are being transmitted from generation to generation. So, in this study the present researcher has tried to reveal that tribal ethno-medical practices are more scientific and advanced and are not at all negligible and backward practices. It is their way of life as well as culture. So, our main objective is that we have to protect and preserve them and their culture and this will be the only way of their development.

# Remedial Measures

Though the tribals are the original inhabitants of India, the have been treated as the most downtrodden section of society for a long time. But now, it's time for us and the government to treat and place them as first-class citizens with benefits of development in education and technology. They should be empowered and their autonomy and self-respect must be protected. The government must ensure the sound health status of tribal population with proper budget allocations under the National Tribal Plan.

The use of indigenous medical practices for regular treatment is their culture and heritage which needs to be protected and preserved and carried over further for generations. The tribals' former should be given access to quality nutrition, health resources. Measures should be adopted to preserve their culture, traditions, art, language and sensibilities. They should be uplifted economically and provided sound and healthy livelihood.

## Measures to be adopted to overcome problems among tribals locally and globally and to make route for the best use of indigenous medicines for treatment of diseases-

India also has a rich tribal knowledge base. Indigenous and tribal people live close to forest plants and wildlife for food, medicines, and forest materials to construct dwelling units. There is an extensive forest cover in the Himalayan and Aravalli ranges, the Eastern Ghats and the two biodiversity hot spots in Arunachal Pradesh and the Western Ghats. It is believed that tribal knowledge is on the decline in India. With forest reserves and developmental projects, the tribal population depends less on the forests for their living. Traditionally, tribal knowledge has been passed on from one generation to the next through oral communication. The tradition is now on the wane as the new generation moves away from the tribal cultures and habitats. The names and terminologies used by the tribes for plants are region-specific, and the undocumented information will be lost forever. It has also been noted that many times the tribal communities are disinclined to disclose their knowledge.

Anthropologists are required to befriend them to get the information, although, there are many monographs like CSIR's Wealth of India: A dictionary of Indian raw materials and industrial products. In A.K. Nadkarni's Indian Materia Medica and publications of the

Botanical Survey of India, these monographs have listed many medicinal properties of each plant, and they do not provide leads to study biological activity. It is required to gather and digitize the tribal knowledge on medicinal plants, edibles, heartwood, plant products like gums and colouring matters etc. CSIR's TKDL should strive to document tribal knowledge as well. An alternative would be to create a tribal knowledge library of herbal medicines and edibles and link it to TKDL.

## Measures taken by the Government for preservation of Ethnic and Tribal medicinal practices:

The Constitution of India seeks to protect tribal interests, especially their autonomy and rights over their land. It provides a comprehensive scheme with directions to protect the indigenous groups from exploitation and to secure their rights over their land. Most of the indigenous groups in India are collectively referred to as Scheduled Tribes and are guaranteed a right to self-determination under the Indian Constitution.

A research council viz. Central Council for Research in Ayurvedic Sciences (CCRAS) of AYUSH ministry has been implementing a Tribal Health Care Research Programme (THCRP) which aims at collecting information on folk medicines / traditional practices prevalent in different parts of the country besides extending health care services to tribal population. Presently, the programme is being implemented through sixteen peripheral institutes / units of CCRAS located in different parts of the country. CCRAS through its peripheral institutes / units (viz. Itanagar - Arunachal Pradesh, Bangalore-Karnataka, Jhansi-Uttar Pradesh and Tari khet – Uttarakhand) is also conducting Medico-Ethno Botanical survey at different regions across the country for documenting and publishing the same from time to time. The data regarding tribal medicine and practices documented so far are under process of validation. In addition, National Medicinal Plants Board (NMPB) under its scheme has also supported some R&D projects on ethnobotanical records to Assam, Karnataka, Mizoram, Manipur, Maharashtra and Uttar Pradesh on medicinal usage of local flora by tribals.

To prevent misappropriation of the country’s traditional medicinal knowledge, Ministry of AYUSH in collaboration with CSIR has established a Traditional Knowledge Digital Library (TKDL) which entails transcription of Ayurveda, Unani, Siddha codified texts into English,

German, French, Japanese and Spanish. The database is shared with patent offices of other countries and forms part of their pre-grant searches.

## Remedial Suggestions:

**1.** Some exploratory studies should be initiated to identify various plant species that have some medicinal bearings with the native medicine man being as active collaborator.

**2.** Systematically study of the tribal methods of extraction and application while comparing them with established systems so as to improve these native techniques and technology.

**3.** Since the forests are fast dwindling and many areas have been brought under industrial growth, the survival of the various species is threatened in their natural habitat, it is therefore necessary to develop scientific methods of cultivating the herb with the tribal participation.

**4.** Some law should be introduced to prevent destruction of various herbs due to industrial and other project activities.

**5.** Some training programmes should be initiated for the scientific methods of cultivation, extraction and marketing of medicinal plants.

**6.** Small units for processing and semi- processing of medicinal plants with tribal entrepreneurship should be promoted.

**7.** There is need for clinical testing to establish the efficacy of certain native herbs in curing endemic diseases.

**8.** Village herbarium is to be promoted with the local trained tribal healer as its curator.

**9.** Special tribal and folk medicine departments are to be created in various medical colleges and Life Science Departments.

**10.** It is essential to recognize the natural right of tribals in the herbs' growing, extraction, processing, semi- processing and their application either in raw or processed form for the treatment of various diseases.

**11.** Local government officials should establish a group of experts including botanists, anthropologist, local vaidyas and medical practitioners to prepare the documentations highlighting the vernacular name, botanical name, therapeutical value and toxic effect of the plants which are in use, so that the people can be familiar about the adverse effects of over dosages and chance contaminations of the poisonous plant parts.

**12.** Medicinal plants are one of the chief components of our natural resources which comprise of nearly 2000 species of higher plants and are considered to have medicinal properties. A lot of plant species are used in the production of Allopathic medicine, whereas thousands of plants are the base of *Ayurveda.* The plants having such an economic bearing and found growing in tribal habitats should be reserved for the collection, processing and marketing by the tribals exclusively as they constitute the native resources on which the indigenous man has the intellectual property right.

**13.** The healthcare traditions of tribal medicine men must be maintained and restored to popularise the traditional plant-based medicines. Simultaneously there should be a campaign for ensuring local efforts for germ plasma conservation of the medicinal plants through promotion of home Herbal Gardens and Medicinal Plant Nurseries.

**14.** Workshops may be organized for sharing of the knowledge and values of plant-based remedies among the tribal medicine men of different localities.

**15.** Advocacy measures may be taken for the practitioners for policy level changes to give them legal recognition.

**16.** A community knowledge register should be prepared at Gram Panchayat level highlighting the knowledge and resources on indigenous healthcare available in the area. This can be an authentic document to protect the indigenous knowledge of the tribal medicine men against pirating of their knowledge.

**17.** The tribal medicine men should be trained on quality preparation of medicine by standardized techniques to strengthen their practices and to prove the authenticity of the system.

**18.** They should be given recognition at the Panchayat level as health providers for the particular Panchayat.

Therefore, following the remedial suggestions, it can be apprehended that the present research holds immense value for both the current and upcoming generations. The application of these remedial measures can help bridge the gap that is currently present in the lives of the tribal medicinal practices with that of the modern biomedical practices in the society. With the encouragement of this inclusively, a new comprehensive social world can emerge in the future.

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# Indigenous Medical Practices among Tribes: A Sociological study in Bankura District of West Bengal

## Jadavpur University

## Scheduled Questionnaire

**A. SOCIO-DEMOGRAPHIC PROFILE:**

1. **Name:** _____ **Age:** _____ **Sex:** _____

   **HOF:** _____

2. **Address:** _____ **Village-+Post:** _____

   **PS:** _____ **Block:** _____

   **Dist :** _____ **State:** _____

3. **No. of family members:** **M** ☐ **F** ☐ **OTHER** ☐

   **Children:** **B** ☐ **G** ☐

4. **Age Group:** **0-14 Y** ☐ **14-18 Y** ☐ **19-40 Y** ☐ **41-65 Y** ☐ **70>** ☐

5. **Educational Qualifications:**

   **Illiterate** ☐ **I-V** ☐ **VI-X** ☐

   **XI-XII** ☐ **Graduate** ☐ **Post Graduate** ☐

6. **Religion:** Hindu. ☐ Muslim. ☐ Christian. ☐ Others ☐

7. **Caste:** General. ☐ SC. ☐ ST. ☐

   OBC (A). ☐ OBC (B) ☐

8. **Language:** Bengali. ☐ Hindi. ☐ Regional languages. ☐

9. **Migrated:** Yes. ☐ No. ☐

If yes, within state. ☐ Outside state. ☐

10. **Identity Card:** Voter Card ☐ Aadhar Card ☐ Pan Card ☐ None ☐

11. **Health Facilities:** Swastha Sathi card. Yes. ☐ No. ☐

**Any Mediclaim Card:** Yes. ☐ No ☐

12. **Occupation:**

Daily Labour ☐ Carpenter. ☐ Mechanic Service ☐ Shop keeper. ☐
Vendor. ☐ Rickshaw Puller. ☐ Van Puller. ☐ Housewife. ☐
Housemaid. ☐ Mason. ☐ Farmer Driver. ☐ Any other. ☐
Unemployed ☐

13. **Family Income per month:**

<500. ☐ 501-2000. ☐ 2001-4000 ☐ 4001-6000 ☐
6001-8000 ☐ 8001-10,000 ☐ >10,000 ☐

14. **Government Facilities:** Ration Card ☐ Cooking fuel/ Ujwala Gas ☐

15. **Availability of Safe drinking water :** Yes ☐ No ☐

16. **Availability of Sanitary System :** Yes ☐ No ☐

**B. HEALTH PROFILE:**

**17. Modern or Scientific Based Practices:**

**Is there any primary health centre :** Yes ☐ No ☐

**18. What kind of disease and health related problems do you suffer from?**

Cough & Cold ☐ Fever ☐ Diarrhoea ☐
Dehydration ☐ Jaundice ☐ Tuberculosis ☐
Skin diseases ☐ Gynecological Problem ☐ Muscle pain ☐

**19. Since how many years you are suffering from diseases?**

10 years ☐ More than 10 years ☐ None ☐

**20. Have you been affected by COVID-19 Pandemic?**

Yes ☐ No ☐

**21. What types of treatment have you undergone?**

Modern Treatment ☐ Indigenous Treatment ☐ Both Treatment ☐

**22. To whom do you approach for medicinal help?**

Modern Doctor ☐ Traditional Doctor ☐ Both ☐

**23. Do you visit to modern doctors and take any modern medicines?**

All time ☐ Many time ☐ Sometime ☐ Never ☐

**24. Do you take modern treatment after snake bite?**

Yes ☐ No ☐

**II) Traditional or Indigenous Based Practices:**

**25. According to you, what are the concept of diseases?**

Natural ☐ Super natural ☐ Can't say ☐

**26. Do you believe in Indigenous medical practices?**

Strongly belief ☐ Believe ☐ Never belief ☐

**27. Do you follow traditional method regarding any illness! diseases?**

Yes ☐ No ☐

**28. Are you fully cured by practicing indigenous medicine?**

Yes ☐ No ☐

**29. What are the rules and regulations you follow?**

Veg Diet ☐ Bath for more than once ☐ Chanting ☐

Tie of sacred threads (arms, neck, waist) ☐

**30. Does music therapy act as a way of medical treatment?**

Yes ☐ No ☐

**31. Is music a part of daily routine?**

Yes ☐ No ☐

**32. Does dance act as a way of medical treatment?**

Yes ☐ No ☐

**33. What is the role of aged people in case of indigenous medical practices?**

All times ☐ Sometimes ☐ Never ☐

**34. Do you believe in supernatural powers?**

Yes (Ghost/ Witch craft/ Soul/ Spirit) ☐ No ☐

**35. Is tribal social life dependent on religion?**

Fully dependent ☐ Partial dependent ☐ Not dependent ☐

**36. According to you, what is the relationship between forest and tribals?**

Dependent on forest ☐ Partially dependent on forest ☐

Not dependent on forest ☐

**37. Who are your traditional healers?**

Osha ☐ Kabiraj / Medicine Man ☐ None ☐

**38. Do tribals still belief believe in traditional medical practices?**

Belief ☐ Partially belief ☐ Not at all belief ☐

**39. From where do you collect traditional medicines?**

Field ☐ Pond ☐ Hill ☐ Forest ☐ River ☐

**40. What methods do you apply for preserving indigenous medicines?**

Dry ☐ Paste ☐ Dust ☐ Dipped on Oil ☐ Vacumm Packing ☐

**41. Do young people use indigenous medicines in their daily life?**

All time ☐ Many times ☐ Some time ☐ Never ☐

Yes ____ No ____

**42. At 21st century, do villagers depend on traditional medical practices?**

Fully dependent ☐ Depended ☐

Partially Dependent ☐ Not dependent ☐

**43. How does indigenous medical practice explore the world?**

Written note ☐ Training ☐ Audio Video recording ☐

Government support / Government Fund ☐

**44. Explain the use of indigenous/traditional medicines in treatment of snake bites among the tribes in Bankura district of West Bengal?**

**45. Explain how Marang Buru acts as a remedy for ailments among the traditional folklore of tribes?**

**46. Detail on the impact of education on ethnomedicine and health care practices among the tribal people of India.**

**47. Explain how music is a therapy that helps as a pain relief in different diseases?**

**48. Explain how dance acts as a way of medical treatment?**

**49. Do you think that your elderly parents have a role in the daily lives or society?**

**50. Highlight the restrictions placed on the environment of the tribals for their proper utilization and conservation through religious myths.**

**51. Discuss the role of medicinal plants in a scientific manner by tribes of West Bengal.**

**52. Explain how practice of using traditional medicines is the most sacred science of life and useful for medical treatment.**

**53. Elaborate the role of folk medicine as a part of rural life.**

**54. Note on how the impact of modern medical system has replaced indigenous belief and practices.**

**55. Write about the parameters of malfunctioning imbalance of forces which leads to diseases among the tribes.**

**56. Explain how the concept of health, disease, treatment and death among the tribes vary according to their culture.**

**57. Explain the factors that affect the health of any tribal community.**

**58. Highlight on the relationship between forest and tribal health.**

**59. Discuss the role of nature and religion on social life.**

**60. Show how the traditional medicine sector is a natural as well as God gifted feature among the village community.**

**Remarks:**

_____

_____

_____

_____

**Name of the Interviewer.** **Name of the Interviewee**

**Signature** **Signature**

**Date**

# Photographs During My Research Work

## Places from where tribals collect traditional medicines(Figure:5,6,7,8,9)

**Figure 5: Jungle Mahal Area.**

**Figure 6: Pond Area.**

**Figure 7: Field Area.**

**Figure 8:River Dwarakeshwar of Bankura.**

**Figure 9: Susunia Hill of Bankura.**

**Figure 10 :Harbal Tree (Mahua Tree).**

**Figure 11: Sacred Place.**

**Figure 12: Conducting Interview(Traditional Medical Healers).**

**Figure 13:Conducting Interview.**

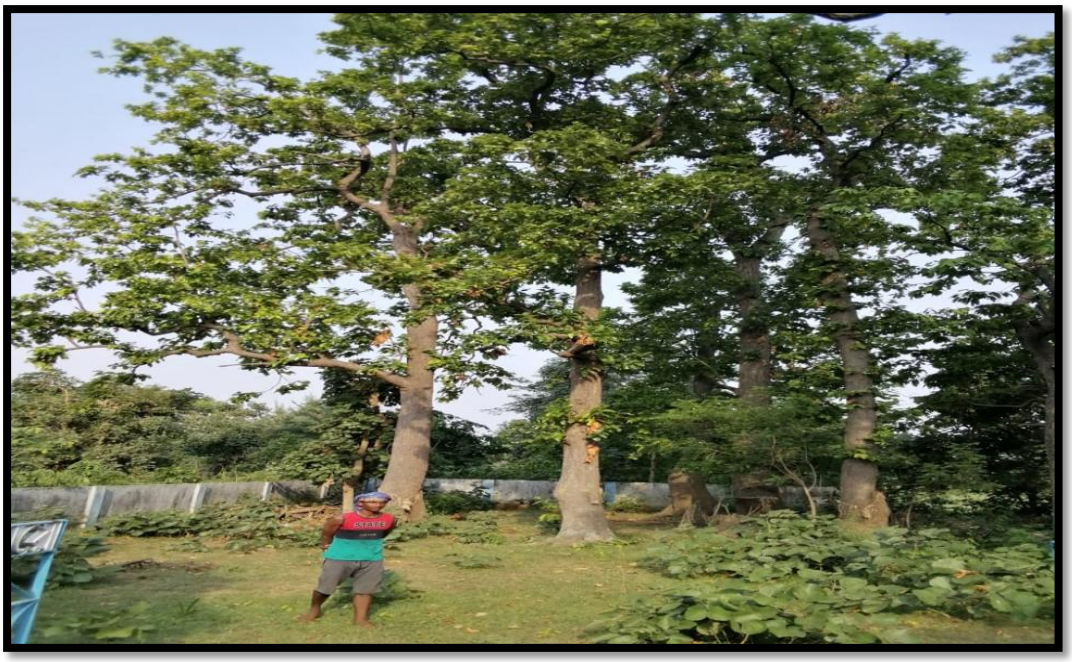

**Figure 14: Sacred and Religious area of tribal village (*Marang Buru Than*).**

**Figure 15: Traditional Medical Healers.**

**Figure 16: Conducting interview of elderly people.**

**Figure 17: Dance and Music Instrument.**

**Figure 18: Tribal House.**

**Figure 19: Tribal Village Area.**

**Figure 20: Tribal Village Entrance.**


Figure 21: Herbal Plants
**(a.**Neem,**b.**kalmegh,**c.**Tulshi,**d.**Basak,**e.**Nayantara&**f.**Akanda**).**

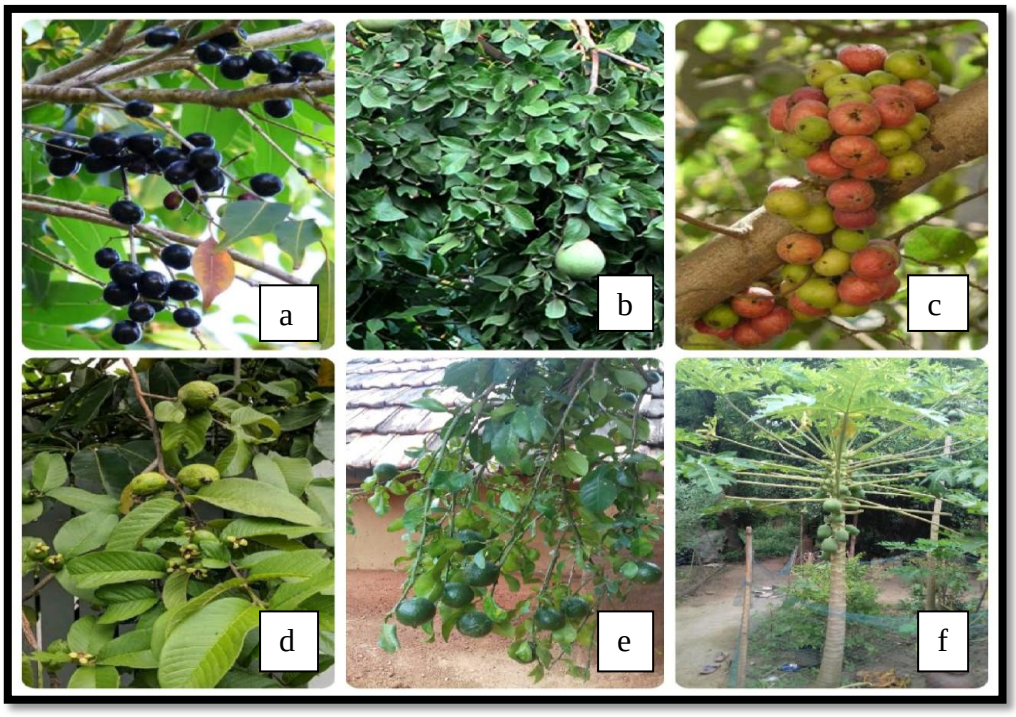


Figure 22: Herbal Fruits

(**a.**Jamun,**b.**Bel,**c.**Dumur,**d.**Payara,**e.**JamirLabu&**f.**Pepa).

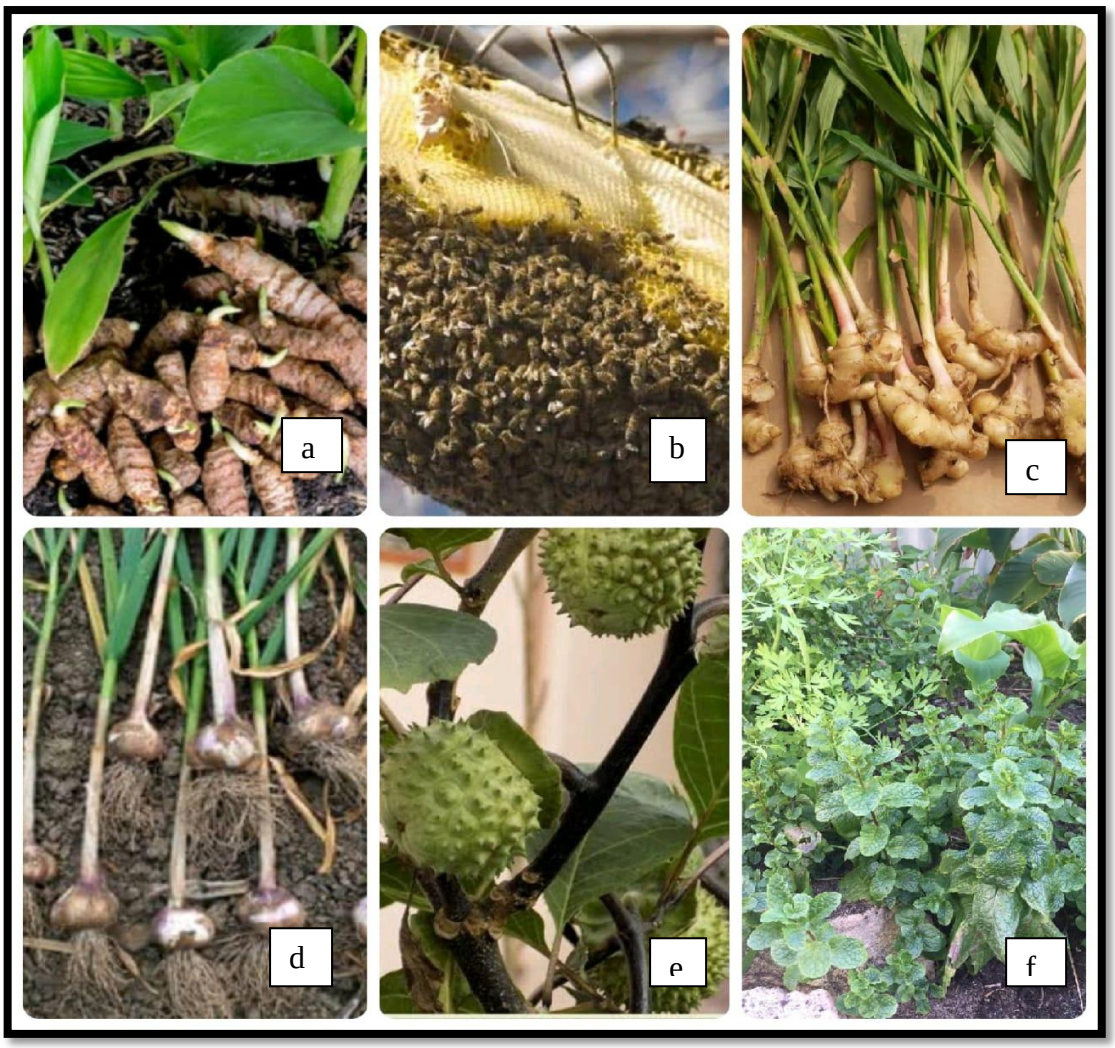


Figure 23: Raw Herbal Medicine

(**a.**Haldi,**b.**Madhu,**c.**Aada,**d.**Rasun,**e.**Dhutura&**f.**Pudina).

Figure 24: Conducting interview.