PREPARATION OF COMPENDIUM ON TRADITIONAL TRIBAL MEDICINE

(BONDA, DIDAYI, KANDHA, DONGRIA KANDHA, SANTAL, MUNDA, BHUMIJ, KOLHA, KHARIA, MANKIRDIA, JUANG, SAORA, KOYA, KISAN, DHARUA, ORAON, BHUIYAN, GADABA, BHUNJIA, GOND) BASED ON PREVIOUS STUDIES

SCSTRTI

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AYUSH (Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy)

BDA: Bonda Development Agency

CBDA: ChuktiaBhunjia Development Agency

CDRI: Central Drug Research Institute

COATS: Council of Analytical Tribal Studies

DDA: Didayi Development Agency

DKDA: DongriaKandha Development Agency

HKMDA: Hill Kharia & Mankirdia Development Agency

JDA: Juang Development Agency

KIIT: Kalinga Institute of Industrial Technology

LSDA: LanjiaSaora Development Agency

NBPGR: National Bureau of Plant Genetic Resources

NGO: Non-Government Organization

NMPB: National Medicinal Plant Board

NTFP: Non-Timber Forest Produce

PBDA: Paudi Bhuiyan Development Agency

PTG: Primitive Tribal Group

PVTG: Particularly Vulnerable Tribal Group

SCSTRTI: Scheduled Castes & Scheduled Tribes Research and Training Institute

ST: Scheduled Tribe

TKDL: Traditional Knowledge Digital Library

TSP: Tribal Sub-Plan

WHO: World Health Organization

EXECUTIVE SUMMARY

Traditional Medicine: Its Relevance Today

Traditional medicine or ethno-medicine is a heterogenous term referring to a broad range of ancient and natural health care practices, which was dominant until the applications of modern scientific methods in the beginning of the nineteenth century, (Pushpangadan, 1999). Traditional medicine might also be considered as a social amalgamation of dynamic medical know how and ancestral experience (WHO, 1978). Indian traditional systems of medicine include Ayurvedic, Unani, Sidha, Naturopathy.

There are many reasons for the promotion of traditional medicine. Firstly, 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. Secondly, 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. Thirdly traditional medicine is one of the surest means to achieve' total health care coverage of the whole population using acceptable safe, economically feasible method (WHO, 1978).

Use of traditional medicine has expanded globally and has gained popularity. It has not only continued to be used for primary health care of the poor in developing countries, but has also been used in countries where conventional medicine is predominant in the national health care system. Practices of traditional medicine vary greatly from country to country, and from region to region, as they are influenced by factors such as culture, history, personal attitudes and philosophy. In many cases, their theory and application are quite different from those of conventional medicine. Long historical use of many practices of traditional medicine, including experience passed on from generation to generation, has demonstrated the safety and efficacy of traditional medicine.

In April 2000, WHO published General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine. The guidelines focus on the current major debates on safety and efficacy of traditional medicine and are intended to raise and answer some challenging questions concerning the evidence base. They also clarify certain commonly used but unclear definitions. Various practices of traditional medicine have been developed in different cultures in different regions without a parallel development of international standards and appropriate methods for evaluating it. The challenge now is to ensure that traditional medicine is used properly and to determine how research and evaluation of traditional medicine should be carried out. However, these guidelines are still not sufficient to cover many challenging issues in the research and evaluation of traditional medicine.

Despite its existence and continued use over many centuries and its popularity and extensive use during the last decade, traditional medicine has not been officially recognized

in most countries. Consequently, education, training and research in this area have not been accorded due attention and support. The quantity and quality of the safety and efficacy data on traditional medicine are far from sufficient to meet the criteria needed to support its use worldwide. The reasons for the lack of research data are due not only to health care policies, but also to lack of adequate or accepted research methodology for evaluating traditional medicine. It should also be noted that there are published and unpublished data on research in traditional medicine in various countries, but further research in safety and efficacy should be promoted, and the quality of the research should be improved.

There is a global clamour for herbalism today. People are fed up with the ever-increasing price and dangerous side effects of the modern allopathic medicines. This factor together with the scientific validations of many tribal knowledge of medicine has created a greater awareness all over the world towards tribal medicines. The people have realized the intrinsic value, safer and economically feasible aspects and curative efficacies of tribal medicine. So, the study about the tribal medicine assumes much relevance in the context of the 'health for all' concept of the WHO.

Ethnomedicine in Context

Ethno-medicine emerged as a sub discipline of medical anthropology. Many ethnologists and anthropologists have engaged themselves in exploring the dimensions of Ethno-medicine and many accounts of great scientific value have been published ever since through the decades. Despite the growth and expansion of western medical system everywhere, in present context, people in the Third World still take recourse to their indigenous medical system developed on the basis of spiritualization, traditional healing practices and some modern notions.

According to the data released by the World Health Organization (WHO), Ethno-medicine has maintained its popularity in all regions of the developing world and its use is rapidly expanding in the industrialized countries (WHO, 2003). Today, ethno-medical practices and beliefs are part of a total belief system that transcends class, ethnicity and religious belief in such a manner that the terms 'folk or traditional' can be used to describe practices that are truly universal (Lowe, et.al. 2003).

Ethno-medicine helps us to understand the developments in healthcare systems and stresses the importance of alternative systems that may be beneficial to the modern world too. Thus Ethno-medicine has become an interdisciplinary subject studied in a cross-cultural approach. The systematic study of Ethno-medicine by anthropologists began since about four decades, although ethnographers always reported about the traditional healthcare and the treatment of illnesses in the indigenous groups they are investigating. However, in recent days there has been an increasing interest in ethno-medical research because the healthcare traditions have been fast changing and many indigenous systems have been threatened by modernization. In the context of research on Ethno-medicine it is therefore important to review and revisit the concepts and dimensions of the subject in order to assess the trend of present day researches and the dimensions that are by and large covered and the gaps or the areas that have remained least addressed.

Today a cursory glance at the tribal medicine reveals the signs of their erosion. The younger generation shows disinclination to initiate the profession. But loss of this indigenous system will be a loss to civilization and heritage. "Medicinal practices among the tribesmen are not just limited to the curative aspects but are integrated with many facets of their life" (Roy Burman, 2000). The tribal medical system, which has evolved through centuries of observation, has time-tested remedies for many diseases. Now the tribal medicine or ethnomedicine has become a treasure hunting ground for other medical systems and multinational drug firms. Professionals of modern medicine approach the tribal healers to collect the secret of their curing recipes. The tribal traditional knowledge is usurped and the intellectual property of the tribes is alienated. The tribal's right over their knowledge on the medicinal plants and herbs should be safe guarded. Preserving and protecting the intellectual property right from the piracy would provide economic and social benefits to the tribals. Further research and analysis of such knowledge of medicine is imperative for the wider application of the efficacious valuable medicine. The immobility of the Tribal medical system to adapt to the changing societal needs and the technological advancement is a major handicap and this system challenges even the very existence of the system. This light of knowledge which has survived through long years of experience and possessing valuable knowledge about the treatments of many diseases of the present world will become extinct unless efforts has been made to preserve it. Modern scientific and technological advancement has to be applied in tribal medicine for making it beneficial to the whole mankind.

Purpose and Relevance of Compendium on Tribal Medicine

SCSTRTI has taken an initiative to prepare a compendium of Tribal Medicine gathering the secondary sources available so far. Thus, the purpose of the compendium is to Collate, comprehend and organize disaggregated data on tribal medicine; Develop a tribal specific database on tribal medicine; Produce a compilation of tribal medicine with index; and Expose the users (expert and Non-experts) to a broad range of tribal medicine of Odisha.

The relevance of the Compendium has been justified in connection with the descriptions as above, especially for giving tribal knowledge systems its due position in the global scenario. While the world is turning back to explore and utilize the traditional knowledge systems, the preparation of the compendium gains relevance in developing a database of tribal knowledge systems of Odisha, that may have an implication that has been little thought about. The scope of the database wider in consideration to the initiatives taken at the Government of India level, especially in chronicling traditional knowledge systems through Traditional Knowledge Digital Library. However, in broader terms, the relevance of the compendium lies in the fact that

- Tribal traditions are changing fast, assimilating in modernity
- Domains of tribal wisdom is fast fading away
- Knowledge of medicine is diverse, ecosystem specific, customary, transmitted through oral traditions
- Sporadic studies on tribal medicine –calling for preparation of a comprehensive database

- Collation and compilation required for preservation of knowledge systems
- The compilation would help comparing affinities and variations in a cross cultural context.

Objectives of the Compendium

The preparation of the Compendium on Tribal Medicine is guided by the following objectives.

- To collect, collate, compile and comprehend the studies conducted on Traditional Tribal Medicine of various tribal communities in Odisha
- To understand tribal people's perception of diseases, their indigenous typology and attributed causes of sickness and health deterioration
- To preserve the knowledge base of the traditional healers vis-à-vis the sources of medicine, process of their preparation, prescription, their application and effectiveness.
- To prepare a community wise inventory of indigenous medicines & healing practices.
- To analyze the importance of magico- religious practices associated in healing, process of their transmission from the healers to their disciples and their importance in tribal context.

Methodology

The methodology for preparation of the Compendium followed simple but careful steps. Since the preparation of the Compendium is based on the compilation of available secondary literature on the tribal medicine and virtually there was no scope for comparing any secondary source with the primary information, documentation process followed the simple procedure of creating a single window with all the available information and then sorting them into relevant sections. However, the following main processes were followed.

Probing in-house information:

Tracing out the in-house information at SCSTRTI level: All the relevant information available at SCSTRTI were thoroughly probed and put in a format in Excel sheet. The Excel sheet covered information available on medicine, medicinal plants in respect of tribes covered. The information thus coded and formatted formed the first set of database.

Accessing information from public domain: A thorough internet search was conducted with use of several key words in order to access and elicit information on the subject in respect of the relevant tribes. As far as possible and practicable, information probing was made tribe wise to incorporate in the database prepared with in-house information. Although, the herculian task of internet probing provided a little, yet they were useful at least in building the bibliography apart from incorporating relevant information in the database.

Reaching out to other libraries: Many research works have been presented as dissertations at Universities and Academic institutions. Thorough probing for relevant information was made from Utkal University of Odisha, Central University of Odisha, North Odisha

University, Nabakrushna Centre for Development Studies, Council of Analytical Tribal Studies and such other institutions to suffice to the building-up database. Many dissertations and research products were gathered and incorporated in the Compendium.

Consulting NGOs and Local Experts: Many NGOs have been working on preservation and conservation of traditional knowledge systems and thus have been documenting the tribal practices among which ethnomedicine count to be an important aspect. NGOs like Sambandh had constituted many Vaidya Sanghas in different tribal pockets and many information on ethno-medicine were documented by them. Council of Analytical Tribal Studies had conducted many workshops with ethno-medicine practitioners in undivided Koraput region and in the process had maintained a treasure of information in vernacular language that were accessed. Seba Jagat in Kalhandi had published information on ethnomedicine in vernacular language that contributed to building up the database. Similarly, there were many booklets produced by local experts in vernacular language that were consulted and in consideration of relevance the data were incorporated.

Appeal to contributors: The Research Consultant and SCSTRTI made appeals to known quarters for contribution of relevant information towards enriching the Compendium. Many scholars responded to it and contributed their published articles, research notes, dissertations and news articles. The materials were examined for relevance and authentic information were incorporated in the compendium.

Data processing, validation and removing duplication:

A number of steps were followed in processing data, validating them and removing the duplications. The steps followed are as follows:

- Tribe wise comprehensive ethnographic information
- Conceptualizing tribe specific medical traditions
- Thorough probing of in-house availability of data/materials
- Organizing and classifying the data/materials
- Tribe wise classification of tribal medicine (sources and forms)
- Tribe wise treatment methods
- Organizing information tribe wise (disease to medicine, medicine to disease) and coding
- Assessment of further information requirements and reaching out for data (external sources, collection from field)
- Rationalization, validation and authentication of data in terms of commonality
- Removing duplication and organizing data theme wise
- Presentation of data in chapters
- Elaborate indexing (Tribe, disease, medicine, local names, scientific names, magico-religious treatment, other treatment methods, minerals, animals (local and scientific name), authors, contributors)

Limitations

Despite all professional attempt to develop the compendium certain challenges were there and some of the challenges could not be met properly. The challenges included

- Availability of tribe wise disaggregated data: Secondary sources indicated that although the traditional medical practices and healthcare systems have been widely acknowledged and rationalized for detailed study, yet there are very few tribes on whom the researchers have concentrated mostly. In many cases the researchers have presented information in generic manner over an area covering many tribal groups. In such cases disaggregating data in respect of specific tribes covered under this project could not be properly ascertained and validated. The secondary sources have dealt with certain tribes within specific geographical situations and an observation on such information indicates that only the well-known tribes have been attempted. In many cases it is realized that the information have been diluted covering many tribes, e.g. with titles like ethnomedicinal information on tribes in Mayurbhanj or such.
- Validation and authentication of data: While compiling information, some benchmarks and proxy-indicators were used to assess authenticity of information. The data published in journals and periodicals or academic works were taken as authentic information on the basis of the fact that they have been produced in peer reviewed journals or have passed phases to prove authenticity. For information in vernacular language, proxy-indicators like whether the information is conformed with tribal jargons, or if local people are aware of such information and such kind of screening methods were followed. In the process many duplications and exaggerations could be sorted out and avoided.
- Reliability of information collected from local sources: The compilers also consulted many known researchers in the subject line for remarks on reliability of information. However, based on general opinion that unless things are cross-checked on the ground no impression on reliability can be given. Since the project had limited scope to compare the information with specific tribal communities, the available information published in public domain was relied upon.
- Differentiating indigenous knowledge and acquired knowledge: There are many information conforming to the descriptions as in Ayurveda. Many such information were encountered with that do not conform to the folk traditions. In this context it was difficult to ascertain the indigenous knowledge and the exogenous or alien knowledge.
- Handling data entry: With a huge bulk of information compiled, it was really difficult to handle the data entry. On one hand all available information were coded and entered in the database after which scrutinizing the data in terms of relevance was the most difficult process. However, to the extent possible the data addition and deletion could be managed scientifically. The errors, duplications, exaggerations could be removed to the extent possible.
- Dealing with plant names: It posed the biggest challenge to overcome. In many
 literatures the medicines have been mentioned in tribal terminologies, in most
 cases the local Odia names have been referred. In very few cases the botanical

names of plants have been mentioned. It can not be said with confidence that the botanical names were appropriate against local name of the plants. To justify the appropriateness of botanical names to local names remained beyond the capacity of the compilers without having the scope to compare the same with primary information. Thus, while putting the information with name of plants, the Odia names have been referred to because of the fact that the Odia names have been by and large referred by most researchers. The name of plants in Odia language is itself a limitation as non-Odia readers may find it difficult to comprehend without taking field trials.

Organization of the Report

The Report has been organized in two sections; a descriptive section and database section. In the descriptive section the Chapter -1 provides an introduction to the subject and the contexts of compilation, objectives, methodology, data presentation and limitations encountered in the compilation for preparation of the compendium. The Chapter - 2 has provided an exhaustive review of literature directly and indirectly relevant to the compendium objectives. The Chapter - 3 provides a comprehensive account of the ethnography of the tribes covered under the compilation. The Chapter - 4 deals with the traditional medical practitioners, their life and status, their induction into the practice and position in society, and also the related religious attributes as comes through in making a person recognized as a practitioner of traditional medicine or simply in making a person a medicine man. The Chapter -5deals with interpretation of the data and discussion. The Chapter - 6 concludes the report with suggestions and recommendations. The chapters follows an exhaustive Bibliography.

The database section is placed as annexure to the descriptive section. The database covers a primary compilation covering all the data available in a rationally designed format. The primary compilation or the main data base has been further filtered out in terms of plant names and in terms of diseases. All the three parts in the database provides bulk of information on tribal traditional medicine.

Observations

Ethnomedicinal practices of tribes under coverage

As explored from secondary sources it is observed that most of the studies conducted by scholars have laid larger emphasis on certain well-known tribal communities. They include Kandha, Saora, Munda, Bonda, Didayi, Paraja, Hill Kharia and some others. Very less studies have been conducted on other tribes covered under the compendium process. Thus, in the compendium certain tribes are well represented while there is apparently inadequate information on certain communities. The well-known tribes on which very little information is available includes Oraon, Mankirdia, Gond, Bhunjia, Kisan, Santal and Koya.

Medicine practitioners, disease and medicine

The tribal societies have specialised people who are dignified for their knowledge on medicinal plants and hence are considered authorities of drug administration in their society. Such specialized people are the tribal medicine men, priests, shamans, wizards, etc., on whom the people of the community have great faith. Their hidden power of curing various ailments through various magical practices and through herbal drug administration constitutes the traditional healthcare system and welfare activities.

Disease, for the tribal communities studied here, is a cause of many factors. To approach a disease for its cure there are certain theoretical, conceptual and methodical processes which are part of indigenous cultures. Diseases are manifestations of peoples' interaction with their environment. In their ideas, diseases may be spiritual, natural and social. As far as their understanding of a disease goes, the final manifestations are a product of interactions of the above factors. This makes sense that sometimes disease is a cause of single factor and sometimes it is the product of a combination of factors.

Spiritual disease is a cause of the evil effect of supernatural powers. If those powers are not properly appeared by religious processes and maintenance of religious restrains then such powers inflict diseases in human beings, and the domestic animals are also not spared. A number of deities are believed to be associated with diseases and ailments.

Natural diseases are in a sense influenced by the environmental factors. These diseases are possible to be systematically diagnosed from the symptoms on which a medical prescription can be made. This also includes the socio-economic factors that influence certain diseases and abnormalities which may be environmental, occupational, and nutritional in origin.

In general, the tribal understanding and concept of diseases is based upon the above factors. Amongst all the types, the spiritual diseases, which are also in one sense psychological, are considered to be the dreaded ones. For, people depend upon the benevolent will of specific spirits and deities, to be cured. All the tribes taken for the observation here consider certain diseases like the pox diseases, epilepsy, hysteria, abortion, premature death, leprosy and bodily manifestations as the dreaded ones, for their medicine men fail to exactly identify the cause of these diseases.

There are two kinds of traditional medicines; little traditional or folk medicine and great traditional. The herbal medicine falls under both the categories. However, the difference is that in the great traditional medicine the dosage is properly quantified and the administration is based on proper diagnosis of symptoms, cause and effects and is universal in application and acceptance. In contrast, the little traditional medicine are mainly the types of folk medicines, the dosage often not properly quantified and is parochial in practice. The tribal practice of medicine falls under the folk medicine category. The range of herbal medicine is too vast. But the practice which is inadequate do not necessarily mean that the people show poor response to herbal medicines, rather as a matter of fact, common people also know some of the herbal medicines for minor ailments.

From the core of the forest wealth great number of plants and trees are identified as medicinal plants by the tribal people. They use plants in their indigenous way. During compilation of information availed from secondary sources it was found that there are a certain number of plants which are commonly known and being used by all the three tribes taken for the study irrespective of the differences in geographical and socio-cultural settings.

Another point of discussion accrues in this connection is the use of medicinal plants that are connected with magico-religious beliefs and applications. The taboos and restrictions associated with the use of these plants are strictly adhered to resulting in their preservation. The magico-religious beliefs about plants have captured their ethos, sentiments and psychologically they accept that plants and trees as medicine have a better efficacy if used followed by some magico-religious practice or performance. They thus believe that, not only a great number of ailments are cured by use of plants and trees but also plants and trees pave them the way for better living, possession of material wealth and to be always in a state of well-being.

Disease profile

Commonly occurring diseases: From the study of available secondary sources, it is observed that the tribal people use plant-based medicines for many diseases of natural and environmental origin. The diseases or sickness or ailments includes asthma, cough and cold, cuts, wounds, diabetes, diarrhoea, dysentery, dog bite, injuries, indigestion, eczema, skin diseases, fever, fracture, gastritis, headache, infection, joint pain, toothache, urination related problems, vomiting, worm, and many others. Treatment is also there to effect conception and contraception and other gynaecological problems mainly the menstrual problems. As such, there are many women and child related diseases most of which are treated through traditional medicine.

Some of the diseases that have been identified with their medical terminology includes hepatomegaly, hydrocele, hernia, etc. that apart, there are also treatments for kidney related problems, mental illness, small pox, chicken pox, spleen diseases, neurological disorders, cardiac problems as reported by many scholars who have studied tribal traditional medicines.

Seasonal variation in diseases: There is a clear seasonal variation of diseases. While some of them occur in particular seasons, some are there that occur through out the year. Amongst the diseases as stated above, cough and cold and related sicknesses generally occur in the rainy and winter seasons while asthma and other respiratory diseases mainly occur in winter and summer seasons. The diarrhoea, dysentery and other gastro-intestinal diseases mainly occur in the rainy season. The distribution of diseases across the seasons also depends upon the food pattern, environment and social behaviour of the tribal communities.

Fever, especially malaria occur throughout the year. Out of the many kinds of fever occurring to the tribal people, malaria is most common followed by fever related to cold. The cold fever is mainly reported in the rainy season and is related to work habits.

Traditional Medicines

Usually plant-based medicines are used for treatment of different kinds of sicknesses and ailments. The most common plants utilized for treating various diseases includes Tulsi (*Ocimum sanctum*), Satavari (*Asparagus recemosus*), Patal garuda (*Rouwolfia serpentina*), Bahada (*Terminalia belirica*), Kusum (*Schleichera oleosa*), Apamaranga (*Achyranthes aspera*),

Ashwagandha (Withania somnifera), Baidanka (Mucuna pruriens), Bisalyakarani (Tridax procumbens), Dudura (Datura metel), Kaincha (Abrus precatorius), Haladi (Curcuma longa), Harida (Terminalia chebula), Jada (Ricinus communis), Lajkuli lata (Mimosa pudica), Mahula (Madhuka longifolia), Nimba (Azadirachta indica), Amba (Mangifera indica), Bhringaraj (Eclipta alba), Dimiri (Ficus glomerata), Guluchi (Tinospora cordifolia), Kendu (Diospyros melanoxylon) and many others that are knwn only by local names.

There is a long list of plants known with local tribal names that are not botanically identified or relevant vernacular names like Odia names have not been mentioned. It may be noted here that the scholars who have studied the tribal ethnomedicine are from different backgrounds and all may not be botanists. From an observation on the methodology followed by various scholars it is evident that only the botanists have been able to identify the plant names on spot or have got them identified botanically by using herbarea methods. However, other scholars who have studied this aspect of the tribal communities have mentioned the plant names by tribal name and or local names. The local names, however, open up the space for further enquiries to properly identify the plants.

Amongst various plants used for treatment of diseases and sicknesses it is evident that roots of plants are mostly used followed by leaves. There are combinations like roots and leaves, root and bark, bark and leaves, leaves and buds, fruits and seeds, rhizomes and stem, flowers and leaves, etc. The whole plant is used in many cases where the plant is herbaceous and seasonal. An observation on the plant medicines used it is clear that there are seasonal variations of the availability of plants. However, the seasonality aspects of availability of plants has hardly been described properly in the secondary sources consulted for preparation of this compendium.

There are also certain formulations like pastes, decoctions, powders, crushes and such other things that are prescribed as medicines. However, the data provides that most of the medicines are taken in raw form after directly collecting from the field. The leaves are generally administered in very raw form or after grating them mixing some other ingredients with it. The roots are taken in grated form. In very few cases decoctions are prepared and administered. For local application different types of pastes are prepared and locally applied. Most of the raw drugs are orally taken.

There are many diseases believed to be supernatural in origin. To treat such diseases usually the medicine men follow certain magico-religious processes. The treatment method following magico-religious processes abide by certain rituals and often sacrifices are executed. As such, there are many plants and trees that are used in magico-religious treatment practices. A list of such plants and trees relating to Hill Kharia, Kutia Kandha and Lanjia Saora has been presented hereunder as gathered from the doctoral dissertation of Jena (1996).

Plants and Trees in Magico-religious practices

It was tried to understand what is the contribution of magic and religion for selection of plants and trees from the wealth of vegetation available in the forest? Certain plants are considered to be more effective in terms of their medicinal properties when utilized in magico-religious way. In a way, such instances have opened up the understanding that there are also considerations of astrological herbalism in tribal tradition of ethnomedicine.

Concluding Remarks

Preparation of the compendium on traditional tribal medicine has been helpful in many ways to understand the gaps in studies in ethnomedicine on tribes of Odisha so far and on the other hand the treasure of information available in public domain in disaggregated form. Through this compendium preparation the studies and disaggregated data on ethnomedicine of tribes could be consolidated at one place. The compilation impress upon the fact that there are many tribes on whom very sporadic studies have been conducted and in the same manner there are certain tribes on whom many studies have been conducted. It could be because of convenience in taking up field studies or could be because there were connecting links for such studies through other studies. However, one thing is very clear that there has been no systematic study conducted on any tribe in a multi-disciplinary perspective. The Botanists have attempted such studies following their methodology while the social scientists have studied the subject from their own perspective. Hence, the presentation and interpretation of data could not be homogenous. Further, taxonomical identification of the plant remained to the domain of botany and the social scientists have documented ethnomedicine ignoring the taxonomical identification of the plants. Thus, there appears many names starting from binomial nomenclature to vernacular and local names. Because of this the consolidation of disaggregated data and classifying the data in accordance with the disease to medicine or medicine to disease, or tribe to medicine has been confronted with challenges and typical limitations.

The compendium thus prepared may be considered as a compilation so as to ascertain the quantum of information available on traditional tribal medicine in respect of different tribal communities of Odisha. While some of compiled information may qualify to be incorporated in the traditional knowledge digital library (TKDL) and other portals in public domain, there are many information that may need further verification and gap filling to bring them in proper order. As such, while there are many other platforms directly or indirectly working on medicinal plants such as Central Drug Research Institute, National Bureau of Plant Genetic Resources, National Medicinal Plant Board, State Biodiversity Board and other academic and research institutes. This information may prove to be of relevance for further research on the subject.

As stated earlier, from the available literature it is evident that the subject of ethnomedicine or the traditional tribal medicine has not been studied systematically. The presentation of firsthand information has remained quite erratic as most of the literature are papers in academic journals and periodicals and hence have not followed a common framework and pattern. Considering the relevance of the subject in the present context it is important and suggestible that such studies may be taken up in systematic manner involving a multi-disciplinary team and collaboration of institutions with domain expertise so that comprehensive and systematic account of tribal traditional medicine can be documented. The steps must be taken early, as the knowledge of tribal traditional medicine is gradually

fading away on the face of several factors; may it be modernization or increased access to other established systems of medicines.

This compilation of tribal traditional medicines on the basis of available secondary sources has enlightened many aspects of the tribal culture and their association with the world of vegetation. On the basis of analysis and observations on the compilation the following recommendations are made.

- An action plan must be formulated and put into implementation for comprehensive documentation of tribal traditional medicine that would help enrich tribal life and knowledge by which the modern society could also benefit.
- In order to document the entirety of use of plants and of plants which are generally not used, a more in-depth study into their socio-cultural paradigm needs to be done before this knowledge is lost in time due to the fast encroaching modernisation.
- The tribal priests and medicinemen deserve to be provided with prominence and incentives to preserve and document their knowledge so that their future generations find an economic meaning in preserving and enriching this traditional knowledge.
- It would be worthwhile if the Government and Non-Government Agencies and Organizations operating in these areas convince the tribals to set up tribal resource groups and guide and encourage them to use their traditional, ethnobotanical and ethnoecological knowledge to identify, preserve and propagate the useful and endangered species, to under-take indigenous plantations and herbal gardens. Care should be taken not to destroy the other-not-so-useful species to maintain the biodiversity balance. Proper economic incentives in the form of commercial utilisation of the produce of these plantations and gardens will ultimately make the process self-sustaining to everyone's benefit.
- Future poiicy and research projects could accord importance to the tribals' ethnic, ethical and emotional attachments with plant world and their philosophical interpretations embedded in their folk lore, oral lore, art forms, etc. This survey will yield unexpected results and open up new avenues of enriching life.
- The authorities should find methods of providing economic benefits to tribals to dissuade them away from shifting cultivation and other destructive practices. Tribal produces could be given a professional marketing outlet.
- The birth control methods of the tribal women could be scientifically studied for implementation in our family welfare programmes.

Apart from the above some special recommendations may be made towards betterment of the knowledge bearers in the tribal societies; especially the medicine men and other practitioners in their society. The major constraints faced by the knowledge bearers and knowledge providers as stated below requires due attention.

Major constraints faced by the Tribal Medicine men

1. Unsecured Livelihood

One of the major constraints faced by the tribal medicine men is that they are not able to get 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 considered 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 but they are expensive for making certain medicines but as people of their own communities are very poor, these are not able to sell much. 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.

2. 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 healthcare practices is also discouraging the tribal medicine meant to adopt these practices as a profession.

3. 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 for a reduction in the number of tribal medicine men in the tribal areas.

4. 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.

5. Deforestation

The local forests and some religiously protected rather inviolate forests are treasure house of major medicinal plant resource 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 (*Saraka asoka*) and Patal garuda (*Rowlpindi serpentina*) 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 to the growth of healing practices of the tribal medicine men.

6. 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 purpose since they are not regarded as professionally qualified doctors.

Remedial Suggestions

In order to solve these problems successfully, following measures are suggested for their implementation.

- The plant based traditional medicines can be recognized and revitalized through awareness generation of the village communities and institutionalised capacity building of the tribal medicine men.
- The outreach of the traditional medicine should be emphasized with promotion of traditional technologies adopted in this regard.
- The demonstration, conservation and propagation of medicinal plant resources should be attempted immediately.
- The healthcare traditions of tribal medicine men must be maintained and restored to
 popularise the tradition 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.
- Workshops may be organized for sharing of the knowledge and values of plant-based remedies among the tribal medicine men of different localities.
- Advocacy measures may be taken for the practitioners for policy level changes to give them legal recognition.
- 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.
- Livelihood options should be encouraged through appropriate income generation sources through conservation, propagation and cultivation of medicinal plants.
- 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.

•	They should be given particular Panchayat.	recognition	at t	the	Panchayat	level	as	health	providers	for	the

INTRODUCTION

Traditional Medicine: Its Relevance Today

Traditional medicine or ethno-medicine is a heterogenous term referring to a broad range of ancient and natural health care practices, which was dominant until the applications of modern scientific methods in the beginning of the nineteenth century, (Pushpangadan, 1999). Traditional medicine might also be considered as a social amalgamation of dynamic medical know how and ancestral experience (WHO, 1978). Indian traditional systems of medicine include Ayurvedic, Unani, Sidha, Naturopathy.

There are many reasons for the promotion of traditional medicine. Firstly, 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. Secondly, 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. Thirdly traditional medicine is one of the surest means to achieve' total health care coverage of the whole population using acceptable safe, economically feasible method (WHO, 1978).

Use of traditional medicine has expanded globally and has gained popularity. It has not only continued to be used for primary health care of the poor in developing countries, but has also been used in countries where conventional medicine is predominant in the national health care system. Practices of traditional medicine vary greatly from country to country, and from region to region, as they are influenced by factors such as culture, history, personal attitudes and philosophy. In many cases, their theory and application are quite different from those of conventional medicine. Long historical use of many practices of traditional medicine, including experience passed on from generation to generation, has demonstrated the safety and efficacy of traditional medicine.

In April 2000, WHO published General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine. The guidelines focus on the current major debates on safety and efficacy of traditional medicine and are intended to raise and answer some challenging questions concerning the evidence base. They also clarify certain commonly used but unclear definitions. Various practices of traditional medicine have been developed in different cultures in different regions without a parallel development of international standards and appropriate methods for evaluating it. The challenge now is to ensure that traditional medicine is used properly and to determine how research and evaluation of traditional medicine should be carried out. However, these guidelines are still not sufficient to cover many challenging issues in the research and evaluation of traditional medicine.

Despite its existence and continued use over many centuries and its popularity and extensive use during the last decade, traditional medicine has not been officially recognized in most countries. Consequently, education, training and research in this area have not been accorded due attention and support. The quantity and quality of the safety and efficacy data on traditional medicine are far from sufficient to meet the criteria needed to support its use worldwide. The reasons for the lack of research data are due not only to health care policies, but also to lack of adequate or accepted research methodology for evaluating traditional medicine. It should also be noted that there are published and unpublished data on research in traditional medicine in various countries, but further research in safety and efficacy should be promoted, and the quality of the research should be improved.

There is a global clamour for herbalism today. People are fed up with the ever-increasing price and dangerous side effects of the modern allopathic medicines. This factor together with the scientific validations of many tribal knowledge of medicine has created a greater awareness all over the world towards tribal medicines. The people have realized the intrinsic value, safer and economically feasible aspects and curative efficacies of tribal medicine. So, the study about the tribal medicine assumes much relevance in the context of the 'health for all' concept of the WHO.

Traditional medicine, in the Indian context is by and large believed to be having its roots in the Ayurvedic medical traditions. Since Ayurveda as a medical system has been scientifically validated and is based on the use of the plants and plant parts, animal parts and minerals, the other folk medical systems relate to Ayurveda, although in rudimentary forms.

Emergence of the Ayurveda Tradition

The spirit of scientific enquiry influencing the intellectual world since the time of Buddha led to old belief systems being questioned and tangible proofs being sought after. In this cultural milieu in the Indo-Gangetic and lower Himalayan regions, tribal and wandering healers, learned physicians, ascetic and yogic traditions such as Buddhism and Jainism, and philosophical schools such as Samkhya, Visheshika and Nyaya all contributed to the emergence of a formal scientific culture of healing that became Ayurveda.

Sanskrit, which is the language of the Vedas and Brahminical culture, re-emerged as the dominant scholarly medium around the beginning of the Common Era. The earliest works on Ayurveda probably dealt with one specific branch of medical practice. The fundamental concepts and practices of Ayurvedic healing continued to be elaborated and refined over centuries and were codified during the early centuries of the C.E. in treatises composed in Sanskrit.

The earliest available works are Charak Samhita, Sushruta Samhita, Astangahridayam, Ashtangasamgraha, Bhela Samhita and Kashyapa Samhita, the latter two are in incomplete versions. These works are compilations of medical practices composed in a systematic manner and define principles, therapeutic methods and moral guidelines for medical

practitioners. Ashtangahrdayam (circa 6-7 century C.E.) organized the theory and practice of Ayurveda in a coherent fashion and is considered to mark the culmination of the classical period. While these works set the norms for the future of Ayurveda, other works, some specializing in particular branches of medicine were also composed during this period. The multi-cultural origins of Ayurvedic knowledge that we alluded to earlier are revealed in the classical texts themselves. Both Charaka Samhita and Sushruta Samhita urge physicians to seek the help of cowherds, hunters and forest-dwellers for procuring medicinal plants. In the Charaka Samhita, we notice the participation and contribution of a Central Asian physician in one of the assemblies of scholars gathered to formulate the principles of Ayurveda. While the three major classical texts attribute the origin of Ayurveda to Vedic divinities, they give importance to Buddhist moral values, and Vagbhata, the author of one of the classical texts (Ashtangahrdayam), was a Buddhist.

Regional Folk Practices

Even before medical knowledge was codified into the canonical texts of Ayurveda, there were abundant sources of medical knowhow in the subcontinent. Healing is practiced by people from all levels of society who live and work in intimate relation with their environment. They range from home remedies related to nutrition and treatment for minor illnesses, to more sophisticated procedures such as midwifery, bone setting and treatment of snake bites and mental disorders. There were also specialists in bloodletting, experts in physical medical practices and others with intimate knowledge of medicinal plants. All these areas of folk practices have their particular folklore that preserved and transmitted such knowledge. Some healing practices were considered to be sacred and were associated with rituals that helped safeguard them. It is interesting to note that in folk traditions there is considerable overlap between healing plants and sacred plants, and certain healing plants were venerated.

Traditionally Sanskrit-based Ayurvedic practice was limited to certain segments of society, folk healers came from all levels of society. Although folk practitioners from the lower strata of society lack the scholarly aura, many who specialize in specific healing practices are held in high esteem. For example, it is not uncommon for scholarly Ashtavaidyas to seek the help of folk healers in paediatric care, poison therapy or diseases of the mind. Classical Ayurveda has been enriched over centuries through such interactions and exchange with regional folk practices.

Traditional Indian Medical Writings

Literature on Indian medicine is vast and there are large numbers of manuscripts in private and public collections and libraries that still need to be documented and studied. They include not only works on Ayurveda in Sanskrit and vernacular languages, but also works on Unani in Urdu and Persian, and on Siddha medicine in Tamil. Vernacular writings helped those literate healers who were not Sanskrit savvy to inform themselves about the theory and practices mentioned in classical works on Ayurveda.

Tribal medical traditions from populations who had historically relied on their forest environments for healthcare have made invaluable contributions to the materiamedica of

traditional medicine.Region specific materiamedica of classical and folk medical traditions owe much to the tribal healing traditions.

From around the 8th century C.E. texts called Nighantus dealing exclusively with the materiamedica of Ayurveda were composed. Many of these works helped to enlarge the repertoire of medicinal substances by incorporating knowledge of local practitioners and from foreign sources. A few well-known Nighantus are Madanapala Nighantu, Bhavaprakasha Nighantu, Dhanvantari Nighantu and Sodhala Nighantu. Until very recently, it was common for Ayurvedic physicians to memorize a Nighantu of special relevance to their region or practice.

Indian Medicine during Pre-colonial and Colonial Periods

As mentioned previously in this introduction, over centuries Indian indigenous medical systems were renowned for skilled physicians, sophisticated medical therapies and for the extensive materiamedica. While interplay of myriad complex factors was responsible for the outcome, there is no debate about the fact that traditional medicine entered a period of decline during the colonial era.

However, during the pre-colonial period early Portuguese and Dutch settlers relied on the thriving medical systems they found in India for their healthcare needs. There were very few physicians among the early European settlers, and they did not have the medicines or the knowledge needed to combat tropical diseases. During this period it was official policy of the Portuguese and Dutch governments in India to actively seek out and document Indian traditional medical knowledge. Several books on Indian medicine written during this period introduced Indian medical knowledge to European medical schools, and botanical medical knowledge of India was tremendously influential in the the global context. Works on Indian botanical medical knowledge, by Garcia da Orta (1568), Christoval Acosta (1578) and the 12 volume Hortus Malabarius (1678-1693) compiled by Aadrian Van Rheede, became reference books for tropical botany and medicine for a hundred years or more.

During the early days of the British East India Company, Indian medical knowledge and "native physicians" were important resources for the colonial establishment. The skills of Indian physicians to treat regional diseases and the rich materiamedica of traditional medicine put them at an advantage over the newly arrived British doctors, struggling to deal with diseases unfamiliar to them. Later as the British East India Company established itself in India, many British physicians assumed broader scholarly roles as botanists, foresters, zoologists, geologists and European medicine came to be looked upon as the dominant medical knowledge system. By mid-19th C. British official colonial policy marginalized indigenous medicine to secondary status. And later as the Indian Medical Service opened to accept Indian nationals, students from upper classes as well as Christians and Muslim entered modern medical colleges and European medicine became the official health care system.

Indian Medical Traditions Since The 20th Century

Even though during the British colonial period official status of Ayurveda and other traditional healing systems were relegated to secondary roles and western medicine became dominant, Ayurvedic colleges offering diplomas were created and the study of classical texts in Sanskrit were initiated in many centers around India. Many of these institutions integrated Ayurveda education with biomedical education curriculum and western concepts of disease and wellness. Pharmaceutical companies also began to manufacture Ayurvedic and other forms of traditional medicines on a large scale to deal with the diminished capability of practitioners and patients to make medical preparations.

After Independence, the government of India made efforts to recognize_Ayurveda, Siddha and Unani as being on par with allopathic biomedicine. In 1964 a government body for setting norms for the manufacture and the control of the quality of traditional medicinal preparations was formed. In 1970 the government of India passed the Indian Medical Central Council Act to standardize Ayurvedic teaching institutions, their curriculum and their diplomas. More recently the government created the Department of AYUSH (Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy) to support research and development of traditional medicine, and to set standards and regulate the activities related to practice. Today the general trend is to comply with the norms of modern biomedicine. In traditional medical schools the vocabulary and diagnostic tools of modern medicine are replacing traditional terms, and techniques and students are increasingly becoming unfamiliar with classical references and methodologies.

In the last few decades there has been growing interest in alternative forms of therapy globally. In addition, attempts by devotees of New Age culture to ascribe new layers of meaning to the concepts of Ayurveda have propagated a simplified and modified version of Ayurvedic culture and practice. While this has stimulated the development of tourism for well-being, leisure Ayurveda, in India, with spas and hotels offering different kinds of simplified treatments, for many in India and abroad these commercialized variants have come to represent Ayurveda.

There are attempts by biomedical and Ayurvedic researchers to correlate Ayurvedic understanding of the nature of disease with modern biomedical concepts. The materiamedica of Ayurveda has attracted the attention of researchers and commercial concerns in India and abroad interested in identifying active molecules and manufacturing commercial versions of traditional formulations. These novel demands along with renewed popularity traditional medical practices within India itself have created conflicting conditions for traditional medicine in general and for Ayurveda in particular.

Ethnomedicine in Context

Ethno-medicine emerged as a sub discipline of medical anthropology. Many ethnologists and anthropologists have engaged themselves in exploring the dimensions of Ethno-medicine and many accounts of great scientific value have been published ever since through the decades. Despite the growth and expansion of western medical system everywhere, in present context, people in the Third World still take recourse to their

indigenous medical system developed on the basis of spiritualization, traditional healing practices and some modern notions.

According to the data released by the World Health Organization (WHO), Ethno-medicine has maintained its popularity in all regions of the developing world and its use is rapidly expanding in the industrialized countries (WHO, 2003). Today, ethno-medical practices and beliefs are part of a total belief system that transcends class, ethnicity and religious belief in such a manner that the terms 'folk or traditional' can be used to describe practices that are truly universal (Lowe, et.al. 2003).

Ethno-medicine helps us to understand the developments in healthcare systems and stresses the importance of alternative systems that may be beneficial to the modern world too. Thus, Ethno-medicine has become an interdisciplinary subject studied in a cross-cultural approach. The systematic study of Ethno-medicine by anthropologists began since about four decades, although ethnographers always reported about the traditional healthcare and the treatment of illnesses in the indigenous groups they are investigating. However, in recent days there has been an increasing interest in ethno-medical research because the healthcare traditions have been fast changing and many indigenous systems have been threatened by modernization. In the context of research on Ethno-medicine it is therefore important to review and revisit the concepts and dimensions of the subject in order to assess the trend of present day researches and the dimensions that are by and large covered and the gaps or the areas that have remained least addressed.

Understanding Ethno-medicine

In general understanding, Ethno-medicine is a study or comparison of the traditional medicine practiced by ethnic groups or indigenous people. The derivatives of this word are the root words i.e., ethno which comes from the Greek ethnos meaning people and medicine has its roots from the Middle English, Old French and Latin word medicīna. It is a comparative study of the ways in which traditional medical practices of indigenous people are utilized to identify and prevent disease (Dictionary.com). It is considered a subfield of medical anthropology and generally takes more of an anthropological approach than it does with bio-medical. It studies not only written documentation of traditional medicine, but oral traditional accounts of traditional medicine as well. It is also known as a type of folk medicine specific to various ethnic groups. The term is used as synonym of traditional medicine and is frequently confused with ethno-pharmacology.

Merriam-Webster dictionary defines Ethno-medicine as the comparative study of how different cultures view disease and how they treat or prevent it. According to Collin's English dictionary, it is the study of different cultural approaches to health, disease and illness, and of nature of local healing systems.

In anthropological connotation, 'Ethno-medicine is concerned with the study of medical systems from the native's point of view. Native categories and explanatory models of illness, including etiologies, symptoms, courses of sickness and treatment are investigated' (Kleinman, 1978; Kleinman, 1980). Ethno-medical research is interdisciplinary and it applies the methods of ethnobotany and medical anthropology. Often, the medicine traditions it

studies are preserved only by oral tradition (Acharya & Shrivastava, 2008:440). The ethnomedical approach proves particularly useful for the study of indigenous therapeutic agents because it allows the researcher to understand treatment patterns according to native explanatory models instead of only through the lens of biomedicine. In the study of ethnomedicine, while the medical part studies the drug dimensions, the anthropological inquiries examine the cultural context and perception of a traditional medicine.

In 1968, the term ethno-medicine was applied to 'those beliefs and practices relating to disease which are the products of indigenous cultural development and are not explicitly derived from the conceptual framework of modern medicine' (Ackerknecht, 1971:11). Subsequently, the term was applied more broadly to refer to 'culturally oriented studies of illness' (Fabrega, 1974), 'beliefs and practices of indigenous cultural development' (Hughes, 1978), 'medical beliefs and practices of members of traditional societies' (Foster and Anderson, 1978:51). It was argued that the concern of ethno-medical investigator was to explain 'an illness – its genesis, mechanism, descriptive features, treatment and resolution – as an event having cultural significance' (Fabrega, 1974). Ethno-medicine was later defined (Fabrega, 1977:969) as 'the study of how members of different cultures think about disease and organize themselves towards medical treatment and the social organization of treatment itself'. Another definition that was suggested by (Foster and Anderson, 1978:36) holds that Ethno-medicine embraces all of the health promoting beliefs, actions and scientific or pseudo-scientific knowledge and skills of a group. The social and cultural dimensions of a disease and the biological phenomena of the illness have to be taken into account, as an ailment or disease may threaten the social and economic well-being of the group and therefore concerns everybody'.

Comprehensively, 'Ethno-medicine refers to the study of traditional medical practice which is concerned with the cultural interpretation of health, diseases and illness and also addresses the healthcare seeking process and healing practices' (Krippner, 2003). The practice of Ethno-medicine is a complex multi-disciplinary system constituting the use of plants, spirituality and the natural environment and has been the source of healing for people for millennia (Lowe, et.al. 2003: 170).

Although the terms Ethno-medicine and traditional medicine are used synonymously and interchangeably, yet traditional medicine seems to be inclusive and well defined. WHO (2000) has defined traditional medicine as 'the sum total of the knowledge, skills 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 illnesses'. Traditional medicine, in this context, covers a broad range of healthcare systems going beyond specific cultures and traditions and covering conventional and nonconventional systems of healthcare. However, anthropological research assumes to have been more connected with the term ethno-medicine as compared to traditional medicine.

Early studies emphasized cultural context in Ethno-medicine research

Early studies of ethno-medicine or indigenous medical systems were mostly limited in focus on witchcraft and illness caused by supernatural forces and on specialists like folk healers, and shamans (Fortune, 1932; Evans-Pritchard, 1937; Turner, 1967; Fabrega and Silver, 1973). By the 1930s, research on the origin and provenance of the cultural components of medical systems was a prominent dimension of American cultural anthropology (Clements, 1932). Since, ideas and behaviours related to sickness and healing were considered a significant part of culture, efforts to reconstruct the process of culture building included close study of the tools and other paraphernalia of healers. The distribution of cultural traits related to health and the control of sickness were mapped and analysed by Forrest E. Clements, resulting in identification of five major causes of diseases in the non-industrial world: sorcery; soul loss; breach of a taboo; intrusion by a disease object; and intrusion by a spirit (Kroeber, 1947).

During this period the emphasis was laid on meaning of illness and on the symbolism of the curing rituals performed by the folk healers with the result that scholars mostly overlooked empirical aspects of indigenous medical cultures (Waldstein and Adams, 2006). However, in the last few decades focus of research on indigenous medical culture has broadened and suggested that in many cases the naturalistic elements of medical cultures had been underestimated and that strong evidence exists for empirical knowledge in many indigenous cultures (Brett, 1994; Berlin and Berlin, 1996; Waldstein and Adams, 2006).

Rubel and Hass (1990) have provided a comprehensive account on cultural context of Ethnomedicine by comparing salient approaches taken by anthropologists in their analysis of illness, healing, and those who provide assistance when sickness strikes. The early classics reported the causes of illness and described diagnostic procedures that invoked supernatural spirits, machinating spouses or neighbours with accounts of the recruitment of diviners and counter-witchcraft specialists to discover the causes of illness.

The argument by Ackerknecht (1971:31) paved a radical shift from a historical approach to health phenomena to a theoretical orientation. According to him 'what counts are not the forms but the place medicine occupies in the life of a tribe or people, the spirit which pervades its practice, the way in which it merges with other traits from different fields of experience'. The emerging functional theory viewed society as comprising interrelated parts, with concepts of disease and its cause(s) and the characteristics of healers being interdependent (Ackerknecht, 1971:31, 54, 55; Wellin, 1977:50, 51; Beals, 1980:289-291). Ethno-medicine contributed to the development of theory and method in socio-cultural anthropology by showing the functional integration of the components of healthcare institutions within society's cultural matrix, its social organization, or political system (Rivers, 1942). The functional integration approach, together with what have become known as the cognitive and the symbolic approaches have become the dominant theoretical approaches to institutions of healthcare. As anthropology became more systematic and research more sophisticated, ethno-medicine became one of the essential dimensions of culture to be investigated (Rubel and Hass, 1990:116).

The spiritual aspects of health and sickness have been an integral component of the Ethnomedicinal practice for centuries. Foster (1976) classified the ethno-medical systems

(primitive medicinal systems or traditional medicine) into two universal categories of disease etiology – natural and un-natural (supernatural) causes. Natural illness explains illness in impersonal systemic terms. Thus, disease is thought to stem from natural forces or conditions such as cold, heat and possibly by an imbalance in the basic body elements. On the other hand, unnatural illnesses are caused by two major types of supernatural forces: occult causes which are the result of evil spirits or human agents using sorcery and spiritual causes which are the results of penalties incurred for sins, breaking taboos or caused by God (Foster, 1976). However, Rivers (1924) pioneered in establishing the close relationship between magic and religion in primitive societies in their ethno-medicine and Ackerknecht (1971) also emphasized that primitive medicine is primarily magico-religious in nature, but utilizes a few rational elements.

Importance of documenting Ethno-medicine

A fundamental question that often arise is that why is ethno-medicine or traditional medicine so important today? Is it because of the fact that people taking recourse to traditional medicine do not have access to modern medicine? If modern medicine is available at their doorsteps why have the communities retained these traditions? If one looks closer at the interweaving of cultures, plants and healing practices, it would be clear that a lot of such traditional knowledge and biodiversity is at stake with the decline of traditional medical knowledge, both locally and globally. The important purpose of studying ethno-medicine is to preserve the traditional knowledge of healthcare which not only is a repository of knowledge about plants but also helps drug development for pharmaceutical science. Field based observations of traditional medicine have the potential to contribute to integrative medicine.

Over last couple of decades there has been a heightened interest in the study of Ethnomedicine. The lack of attention paid to this area of study has resulted in a significant decrease in biodiversity and culture in various indigenous regions of the world. Despite the apparent benefits of modern medicine, there are many limitations to its overall approach as regards to healing those who are ill. The costs of modern health care can prevent numerous individuals from receiving its benefits except those who can afford it. The study of ethnomedicine provides a bridge to the gap between western medicine and cultural healing practices of indigenous people. It also helps to address the apparent disconnection that modern societies have with the nature and natural systems.

In the research context on ethno-medicine, the understanding on conceptualization of illness, its cause and cures by the communities, the role of healers and the relationship between concepts of disease and cosmology are very important areas of study. The concepts and processes developed and adapted by the communities are scientific on its own accord. However, the notion of illness varies from community to community. There are certain cultural attributes that are commonly found among most, if not all, of the tribal communities. They are:

Notion of illness attributed to sorcery/witchcraft

- Transgression of social norms
- Associations drawn between social norms and governing behavior
- Attribution of sickness to supernatural forces

Information on the above points recognizes the cultural diversity amongst indigenous and rural peoples who practice age-old traditions of interacting with the natural environment that surrounds them. Subject to evolution, such knowledge still remains loyal to the practices established across generations. Traditional ways of utilizing regional flora and fauna, other living organisms, as well as the use of other energetic forces such as mantras, psalms and chants, for healing and cleansing purposes, are vital proponents to this form of knowledge.

Practiced by shamans and families of local rural communities, this multifaceted and holistic approach to medicine provides an inexpensive and efficient way for economically disadvantaged communities to heal each other. Such knowledge is passed on to new generations through oral traditions, apprenticeship programs and other culturally specific traditions and insinuates the fact that practitioners of these methods and models are stewards of not only the land and environment they cultivate but also of the technologies themselves. This form of knowledge is often misinterpreted by many western societies, who characterize shamanic practices and other indigenous ways of healing as strange and mysterious methods of witchcraft. While the interplay of spirituality, respect for nature and a keen understanding of their natural environments help to shape the traditions of such people, it is important to recognize that they often view their daily practices simply as a way of life.

Many recent research literatures on ethno-medicine draw upon the impression that the culture element in ethno-medical studies has been by and large ignored or very inadequately addressed. The cultural elements or the cognitive aspects in ethno-medical studies specify the knowledge systems in specific cultural context, geographical context and political context. As an observation it may be stated that many researchers have focused their studies on the medicine and their administration in relation to certain diseases and sickness. Each medicine, tools for administration of medicine, the processes followed, the patient psychology, notion of healthcare and such are culturally attuned in various ethnic communities. Hence, in the absence of specific cultural interpretations in the context of ethno-medical research the descriptions appear as disconnects between the people, their practice, their notion of healthcare and notion of well-being.

Many ethnobotanical accounts are being presented as accounts of ethno-medicine. In both the cases culture is an integral part to be studied, although, however, in the case of ethno-medicine one has to go deep into the cultural attributes, symbolism, magic and religion, ethno-psychiatry in relation to their healthcare systems. Hence, ethno-medicine and ethno-botany are not the same; their context and concept contrasts in certain major dimensions. Ethnobotany is a study of botany in relation to a particular race, culture or people. It deals with study among tribals and rural people for recording their unique knowledge about plant-wealth and search of new resources of herbal drugs, edible plants and other aspects of plants including conservation. Since, plant based drugs are mainly used in traditional

healthcare systems, the ethnobotanical studies can contribute a lot to ethno-medical studies. Thus certain dimensions in ethno-botany and ethno-medicine are mutually inclusive and certain dimensions are mutually exclusive. Ethno-botany and ethno-medicine go hand in hand while studying the magico-religious beliefs of people associated with plants in performing magic, witchcraft and sorcery for healing sicknesses and diseases and preserve well-beingness.

The purpose here is not to draw upon the differences between ethno botany, ethnomedicine, ethno pharmacology or such closely related subjects. Rather the larger interest is to open up the relatively ignored aspects and dimensions in ethno-medicine studies. No doubt, literatures available in ethno-medicine have brought into light many aspects of the subject. However, there are still certain frontiers in ethno-medical research which has been least explored or inadequately described. Rubel and Hass (1990) on the basis of their analysis have urged the importance of looking into certain major areas, as presented here under, that also sets the agenda for future research in ethno-medicine.

- 1. The incidence and distribution of particular illnesses within a population is an important area for research. It questions if a stipulated illness is widespread or confined to one or several segments of the population. If women and men suffer it in equal measure. If it affects persons without respect to their social and political status. If it is confined to a particular ethnic group or social class.
- 2. The effects of healing procedures: It is vitally important to discover the extent to which a healing procedure is directed have been attained, whether these goals are improved social relationships, improved social well-being, or improvement in an individual's biological or mental health status (Browner, Ortiz and Rubel, 1988) where individual healing is a metaphor for the alleviation of social difficulties that threaten rupture of structural ties or social solidarity (Lindenbaum, 1979)
- 3. Healing implications of patient support group: Although it is conventionally accepted that healing procedures that includes patient support group have better outcomes, the importance of this assumption demands empirical assessments. Does social support in a healing ceremony ensure better results and, if so, in what kind of social system?
- 4. The choice of nonprofessional care when cosmopolitan physicians are available: Speculation that people prefer non-physician healers because they share with them a paradigm of health and healing or because lay healers take more time in treatment of patients than biomedical physicians is unproductive.
- 5. The differences between healers locally identified by distinctive labels should be specified: Whether they are recruited from the same segment of society, gain healing power in the same manner, and undergo similar training. Studies of this kind may eventually permit cross-cultural generalization about categories of healers.
- 6. Symptoms and sicknesses: It is only through tabulation and description of the symptoms reported by all patients suffering from a particular sickness that we can hope to discover a consistent assemblage of indicators and identify the relationship among them (Fabrega, 1977).

7. The range of applicability of ethno-medical hypothesis.

It is not only ideal rather logical too to give due importance to the above as important ingredients of ethno-medicine research outputs in order to properly specify the source of knowledge in relation to specific cultures. That would substantiate the ethno-medicine of an ethnic group or population, the relationship between the health seekers and health providers within domain of culture, magic, mysticism, customs and traditions.

The theories and concepts of prevention, diagnosis, improvement and treatment of illness in ethno-medicine historically rely on a holistic approach towards the sick individual, and disturbances are treated on the physical, emotional, mental, spiritual and environmental levels simultaneously. As a result, most systems of traditional medicine may use herbal medicines or traditional procedure-based therapies along with certain behavioural rules promoting healthy diets and habits. Holism is a key element of all systems of traditional medicine. Therefore, when reviewing the literature on traditional medicine (both herbal medicines and traditional procedure-based therapies), the theories and concepts of the individual practice of traditional medicine, as well as the cultural background of those involved, must be taken into account.

Tribal medicine stands unique

The tribal medicine system is still in its primitive form and follows the ancient system and practices. At the same time other traditional systems in India like Ayurveda, Sidha, Unani, etc., slowly but steadily adopted modern scientific and technological methods of treatment and earned much acceptance. But the tribal medicine showed reluctance to accept any modern scientific methods of treatment and kept in traditional forms. The gems of knowledge of tribal medicine are not recorded anywhere. They are handed down the generation by word of mouth. Even these words are accessible only to a selected few, very often to a chosen, most loved and dedicated descendent. Usually practitioner is reluctant to transfer his knowledge of medicine because he knows that the social recognition and influence that he enjoys from the society is because of his knowledge in medicine. So, he keeps the knowledge as a private treasure. Such secret knowledge has inbuilt dangers of extinction. The tribal medical practitioner could die incommunicado without being able to transfer his knowledge to the younger generation. This leads to the decrease in the number of knowledgeable tribal medical practitioners and finally to the extinction of the light of knowledge.

Today a cursory glance at the tribal medicine reveals the signs of their erosion. The younger generation shows disinclination to initiate the profession. But loss of this indigenous system will be a loss to civilization and heritage. "Medicinal practices among the tribesmen are not just limited to the curative aspects but are integrated with many facets of their life" (Roy Burman, 2000). The tribal medical system, which has evolved through centuries of observation, has time-tested remedies for many diseases. Now the tribal medicine or ethno-

medicine has become a treasure hunting ground for other medical systems and multinational drug firms. Professionals of modern medicine approach the tribal healers to collect the secret of their curing recipes. The tribal traditional knowledge is usurped and the intellectual property of the tribes is alienated. The tribal's right over their knowledge on the medicinal plants and herbs should be safe guarded. Preserving and protecting the intellectual property right from the piracy would provide economic and social benefits to the tribals. Further research and analysis of such knowledge of medicine is imperative for the wider application of the efficacious valuable medicine. The immobility of the Tribal medical system to adapt to the changing societal needs and the technological advancement is a major handicap and this system challenges even the very existence of the system. This light of knowledge which has survived through long years of experience and possessing valuable knowledge about the treatments of many diseases of the present world will become extinct unless efforts has been made to preserve it. Modern scientific and technological advancement has to be applied in tribal medicine for making it beneficial to the whole mankind.

Majumdar (1961) considered a tribe as "a group speaking a common language and inhabiting a common territory". He further describes them as a "collection of families or groups of families bearing a common name, members of which occupy the same territory, speak the same language and observe certain taboos ... and have developed a well-assessed system of reciprocity and mutuality of obligations".

According to Dube, (1977) most popular definitions ... tended to see in the tribes some, if not all, of the following characteristics: (1) their roots in the soil date back to a very early period; if they are not the original inhabitants, they are at least some of the earliest inhabitants of the land; (2) they live in the relative isolation of the hills and the forests; (3) their sense of history is shallow for, among them the remembered history of five to six generations tends to get merged in mythology; (4) they have a low level of techno-economic development; (5) in terms of their cultural ethos, language, institutions, beliefs and customs, they stand out from other sections of society and (6) If they are not egalitarian, they are at least non-hierarchic and undifferentiated.

In 1982, the World Bank in its operational manual statement defined 'tribal people' as "those ethnic groups typically with stable low energy sustained-yield economic systems, as exemplified by hunter-gatherers, shifting or semi-permanent farmers, or fishermen", and exhibiting varying degrees of characteristics such as geographical isolation, un acculturated or only partially acculturated into the social norms of the dominant society, non-monetised or only partially monetised, producing largely for subsistence and independent of the national system-ethnically different from the national society-non literate and without a written language, linguistically different from the wider society, identifying closely with one particular territory, having an economic life style largely dependent on the public natural environment, possessing indigenous leadership but little or no national representation etc. They generally have loose tenure over their traditional lands, which may not be accepted as legally binding by the dominant society. Thus, they have weak enforcement capabilities

against encroachers even when tribal areas have been delineated. (Encyclopaedia of Dravidian Tribes. V. I, 1996)

According to the McGraw Hill Encyclopedia of Science and Technology, (1997) the term 'Medicine' has two general meanings. The first indicates any material, notably in the drug category, which is given to prevent, alleviate beneficially alter, or stop a disease process. On the second and broader sense, medicine denotes the field of science devoted to healing. A tribal medicine or folk system of medicine is a set of dynamic medicinal practices, based on the principles of trial and error, and on empirical evidence, which has evolved over a period of time- given a set of supports necessary for its growth and development within a unique socio-cultural and physical- environment (Johari and Karki, 1999).

The use of medicinal plants for the treatment of disease was known to the tribals many centuries ago. From time immemorial the people especially, tribal people realized the curing and healing properties of the herbs and roots (Sharma, 1999). There are estimated to be around 25,000 effective plant based formulations used in folk medicine and known to rural communities all over India (Planning Commission, 2000). The tribes who live in isolation, practice their own system of medicine known as ethno medicine or tribal medicine. According to Hughes, ethno medicine is "the medical system of the primitive which have been evolved in their own cultural milieu and recognized as the methods of diagnosis and treatment which are natural or not. It includes all the body of beliefs, therapeutic practices including pharmacopoeias which they use for curing diseases, even if they attribute the cause of natural or super natural forces" (Sills, 1968). According to Shankar (1989), "it may surprise people to learn that throughout India, in most of her folk communities, there exist living traditions of health care. These are based on the use of locally available fauna, flora and minerals. They encompass important areas of the health care like mother and childcare, treatment of common ailments, home remedies, first aid and nutrition. They also deal with specialised areas like snake poisons, dental care, broken bones, veterinary care and treatment of chronic ailments. These traditions are of extremely decentralized nature. At one extreme is the house wife with knowledge of home remedies while on the other there are the folk practitioners who deal with special areas like the village mid-wives and traditional tribal practitioners". Soren (1997), elucidates that "tribal medical traditions exhibit an entirely autonomous character. They are community or culture specific with little overlapping between the medical practices of communities residing within the same region. They function today with thousands of traditional practitioners and have been functioning so far thousands of years. Traditional practitioners belonging to the same community interacts and shares their knowledge between themselves. However, there is very little or no information sharing between the practitioners of different communities". Different tribal communities utilize different plants or different parts of the same plants for particular ailments. This indicates a deep knowledge about these herbs and plant as well as combination and dose of such indigenous objects for cure of different diseases (Chaudhari, 1989). Various herbal medicines utilized by many tribes have rich ingredients of medicinal value for effective birth control, treatment of skin diseases, ear and eye infection, cough and cold and other epidermal diseases (Pati, 1991). For minor ailments, plants available in the surrounding

areas are used while for more serious ailments, there are specialist in traditional medicines. Great faith is placed in these medicines often at the expense of "hospital medicines". (Anilkumar and Vedavalli, 1999). 2.2.2 Transfer of knowledge Tribal medicinal knowledge is passed from generation to generation by means of word of mouth. According to Mashelkar (2002), folk traditions are handed over orally from generation to generation. The folk medicine is based on traditional beliefs, norms and practices based on centuries old experiences of trials and errors, success and failures at the household level. These are passed through oral traditions and may be called "peoples health cultures, home remedies or folk remedies". Johari and Karki (1999), opines that, "the custodians of herbal folklore are generally individuals or groups of families who have inherited their knowledge through oral traditions passed down generations. This knowledge which is often regarded as a family treasure, is not accessible even to the rest of the community to which the practitioner belongs and is therefore vulnerable to destruction and loss". According to Saraswati (1987), "the tribal knowledge of different herbal preparation is based on observations and experiment. The empirical knowledge is transmitted by word of mouth". 2.2.3 Importance of forest medicinal plants Medicinal plants growing in forest ecosystem meet many of the health care needs and requirements of the Indian population. For example, of the 2000 drug items recorded in the Indian Materia Medica, 1800 are of plant origin - about 80% of the raw materials required in the manufacture of drugs are forest based (Lambert et all 1997). A survey conducted by the All India co-ordinated Research project on Ethnobiology (AICRPE) recorded over 8000 species of wild plants used by the tribals and other traditional communities in India for treating various health problems (ISMH, 2001). According to the FRLHT report, the Indian system of medicine uses across the various systems, i.e., folk, sidha, unani, etc., around 8,000 species of plants. The maximum numbers of medicinal plants are utilized by the folk traditions, followed by Ayurveda, Sidha, Unani, Homeopathy, Tibetan and Modern respectively (Shankar et al, 2000).

Among the medicinal plants used, one-third is trees and equal portions are shurbs and the remaining one-third herbs, grasses and climbers. A very small proportion of the medicinal plants are lower plants like lichen, ferns, algae etc. Majority of the medicinal plants are higher flowering plants [Planning Commission, 20001.

Herbal medicine has been defined by several WHO guidelines that they include crude plant materials, such as leaves, flowers, fruit, seed, stem, wood, bark, roots, rhizomes or other plant parts, which may be entire, fragmented or powdered. (Z hang 2000).

Purpose and Relevance of Compendium on Tribal Medicine

In Odisha there are as many as 62 ethnic tribal groups recognised as Scheduled Tribes. All the tribes are unique in their socio-cultural aspects. Many tribal communities inhabit remote mountainous regions and in areas with poor infrastructure and poor access to modern healthcare facilities. Over the years the tribal people have been living in seclusion and away from the mainstream and survive on their own systems of livelihoods, healthcare and other aspects. Many scholars have taken interest in studying the various tribal communities from different aspects and dimensions, among which studying the tribal medical system and healthcare has assumed importance for researchers from natural science and social science.

Although, in the context of Odisha, there has been hardly any systematic attempt to study the tribal medical and healthcare systems in a comprehensive manner, yet there are some sporadic studies and research products available that provide a basis to understand that the tribal people, despite the spread of modernization, still insist on their traditional healthcare practices largely basing on the nascent plant based medicines, and also by mixing the plant products with animal products and minerals, and in most cases dwelling on their traditional belief systems where religion and magic are used as tools for treatment and cure.

In this context, SCSTRTI has taken an initiative to prepare a compendium of Tribal Medicine gathering the secondary sources available so far. Thus, the purpose of the compendium is to Collate, comprehend and organize disaggregated data on tribal medicine; Develop a tribe specific database on tribal medicine; Produce a compilation of tribal medicine with index; and Expose the users (expert and Non-experts) to a broad range of tribal medicine of Odisha.

The relevance of the Compendium has been justified in connection with the descriptions as above, especially for giving tribal knowledge systems its due position in the global scenario. While the world is turning back to explore and utilize the traditional knowledge systems, the preparation of the compendium gains relevance in developing a database of tribal knowledge systems of Odisha, that may have an implication that has been little thought about. The scope of the database wider in consideration to the initiatives taken at the Government of India level, especially in chronicling traditional knowledge systems through Traditional Knowledge Digital Library. However, in broader terms, the relevance of the compendium lies in the fact that

- Tribal traditions are changing fast, assimilating in modernity
- Domains of tribal wisdom is fast fading away
- Knowledge of medicine is diverse, ecosystem specific, customary, transmitted through oral traditions
- Sporadic studies on tribal medicine –calling for preparation of a comprehensive database
- Collation and compilation required for preservation of knowledge systems
- The compilation would help comparing affinities and variations in a cross cultural context.

Objectives of the Compendium

The preparation of the Compendium on Tribal Medicine is guided by the following objectives.

- To collect, collate, compile and comprehend the studies conducted on Traditional Tribal Medicine of various tribal communities in Odisha
- To understand tribal people's perception of diseases, their indigenous typology and attributed causes of sickness and health deterioration
- To preserve the knowledge base of the traditional healers vis-à-vis the sources of medicine, process of their preparation, prescription, their application and effectiveness.

- To prepare a community wise inventory of indigenous medicines & healing practices.
- To analyze the importance of magico- religious practices associated in healing, process of their transmission from the healers to their disciples and their importance in tribal context.

Methodology

The methodology for preparation of the Compendium followed simple but careful steps. Since the preparation of the Compendium is based on the compilation of available secondary literature on the tribal medicine and virtually there was no scope for comparing any secondary source with the primary information, documentation process followed the simple procedure of creating a single window with all the available information and then sorting them into relevant sections. However, the following main processes were followed.

Probing in-house information:

Tracing out the in-house information at SCSTRTI level: All the relevant information available at SCSTRTI were thoroughly probed and put in a format in Excel sheet. The Excel sheet covered information available on medicine, medicinal plants in respect of tribes covered. The information thus coded and formatted formed the first set of database.

Accessing information from public domain: A thorough internet search was conducted with use of several key words in order to access and elicit information on the subject in respect of the relevant tribes. As far as possible and practicable, information probing was made tribe wise to incorporate in the database prepared with in-house information. Although, the herculean task of internet probing provided a little, yet they were useful at least in building the bibliography apart from incorporating relevant information in the database.

Reaching out to other libraries: Many research works have been presented as dissertations at Universities and Academic institutions. Thorough probing for relevant information was made from Utkal University of Odisha, Central University of Odisha, North Odisha University, Nabakrushna Centre for Development Studies, Council of Analytical Tribal Studies and such other institutions to suffice to the building-up database. Many dissertations and research products were gathered and incorporated in the Compendium.

Consulting NGOs and Local Experts: Many NGOs have been working on preservation and conservation of traditional knowledge systems and thus have been documenting the tribal practices among which ethnomedicine count to be an important aspect. NGOs like Sambandh had constituted many Vaidya Sanghas in different tribal pockets and many information on ethno-medicine were documented by them. Council of Analytical Tribal Studies (COATS) had conducted many workshops with ethno-medicine practitioners in undivided Koraput region and in the process had maintained a treasure of information in vernacular language that were accessed. Seba Jagat in Kalhandi had published information on ethno-medicine in vernacular language that contributed to building up the database.

Similarly, there were many booklets produced by local experts in vernacular language that were consulted and in consideration of relevance the data were incorporated.

Appeal to contributors: The Research Consultant and SCSTRTI made appeals to known quarters for contribution of relevant information towards enriching the Compendium. Many scholars responded to it and contributed their published articles, research notes, dissertations and news articles. The materials were examined for relevance and authentic information were incorporated in the compendium.

Data processing, validation and removing duplication:

A number of steps were followed in processing data, validating them and removing the duplications. The steps followed are as follows:

- Tribe wise comprehensive ethnographic information
- Conceptualizing tribe specific medical traditions
- Thorough probing of in-house availability of data/materials
- Organizing and classifying the data/materials
- Tribe wise classification of tribal medicine (sources and forms)
- Tribe wise treatment methods
- Organizing information tribe wise (disease to medicine, medicine to disease) and coding
- Assessment of further information requirements and reaching out for data (external sources, collection from field)
- Rationalization, validation and authentication of data in terms of commonality
- Removing duplication and organizing data theme wise
- Presentation of data in chapters
- Elaborate indexing (Tribe, disease, medicine, local names, scientific names, magico-religious treatment, other treatment methods, minerals, animals (local and scientific name), authors, contributors)

Limitations

Despite all professional attempt to develop the compendium certain challenges were there and some of the challenges could not be met properly. The challenges included

• Availability of tribe wise disaggregated data: Secondary sources indicated that although the traditional medical practices and healthcare systems have been widely acknowledged and rationalized for detailed study, yet there are very few tribes on whom the researchers have concentrated mostly. In many cases the researchers have presented information in generic manner over an area covering many tribal groups. In such cases disaggregating data in respect of specific tribes covered under this project could not be properly ascertained and validated. The secondary sources have dealt with certain tribes within specific geographical situations and an observation on such information indicates that only the well-known tribes have been attempted. In many cases it is realized that the

- information has been diluted covering many tribes, e.g. with titles like ethnomedicinal information on tribes in Mayurbhanj or such.
- Validation and authentication of data: While compiling information, some benchmarks and proxy-indicators were used to assess authenticity of information. The data published in journals and periodicals or academic works were taken as authentic information on the basis of the fact that they have been produced in peer reviewed journals or have passed phases to prove authenticity. For information in vernacular language, proxy-indicators like whether the information is conformed with tribal jargons, or if local people are aware of such information and such kind of screening methods were followed. In the process many duplications and exaggerations could be sorted out and avoided.
- Reliability of information collected from local sources: The compilers also
 consulted many known researchers in the subject line for remarks on reliability of
 information. However, based on general opinion that unless things are crosschecked on the ground no impression on reliability can be given. Since the project
 had limited scope to compare the information with specific tribal communities,
 the available information published in public domain was relied upon.
- Differentiating indigenous knowledge and acquired knowledge: There are
 many information conforming to the descriptions as in Ayurveda. Many such
 information were encountered with that do not conform to the folk traditions. In
 this context it was difficult to ascertain the indigenous knowledge and the
 exogenous or alien knowledge.
- Handling data entry: With a huge bulk of information compiled, it was really difficult to handle the data entry. On one hand all available information were coded and entered in the database after which scrutinizing the data in terms of relevance was the most difficult process. However, to the extent possible the data addition and deletion could be managed scientifically. The errors, duplications, exaggerations could be removed to the extent possible.
- Dealing with plant names: It posed the biggest challenge to overcome. In many literatures the medicines have been mentioned in tribal terminologies, in most cases the local Odia names have been referred. In very few cases the botanical names of plants have been mentioned. It cannot be said with confidence that the botanical names were appropriate against local name of the plants. To justify the appropriateness of botanical names to local names remained beyond the capacity of the compilers without having the scope to compare the same with primary information. Thus, while putting the information with name of plants, the Odia names have been by and large referred to because of the fact that the Odia names have been by and large referred by most researchers. The name of plants in Odia language is itself a limitation as non-Odia readers may find it difficult to comprehend without taking field trials.

REVIEW OF LITERATURE ON TRADITIONAL TRIBAL MEDICINE

The concept, context and dimensions of traditional tribal medicine is quite broad as is observed from various scholarly works, reference of some have been mentioned in the introductory chapter. Many scholarly works have been published over the years that elucidate the fact that the traditional tribal medicine is value based and especially in the context of tribals of Odisha and other states of India the traditional tribal medicine is seen as a culture. Tribal medicine, apart from using plant, animal and minerals as raw ingredients in drug administration, there are also formulations prepared in kind of pastes, powders, decoctions, sap, boles and such other preparations. In many situations of diagnosis, prescription and drug administration the tribal medicine men also use magic and religion as tools. Evidently certain kind of drug administration are done in magico-religious manner. Thus, the drug captivates the mind and soul of the patient apart from the medicinal efficacy healing the symptoms, sicknesses and diseases.

The state of Odisha has the second highest percentage of tribal population of the Indian States. The State has a total of 62 Scheduled Tribe communities out of which 13 have been identified as Particularly Vulnerable Tribal Groups (PVTG). The Scheduled Area of Odisha comprise of 13 districts and 119 Tribal Sub-Plan (TSP) Blocks. About 55% of the total tribal populations live in the Scheduled area and the remaining 45 live outside the Scheduled Area. In the state context, the tribal population is predominantly rural, with about 95 per cent residing in villages. Geographically the major tribal population in the State is distributed in the Northern Plateau and Eastern Ghats falling in North Western and South Western part of the State.

The tribal communities in the state are at different levels of development. Most of the tribal communities may still be considered as forest dwelling tribes who follow their traditional patterns in their pursuit of living and livelihoods earning. These tribal communities, staying away from modern infrastructures and facilities have developed coping mechanisms for sustenance and survival. They have traditional systems of healthcare which are unique as compared to the developed and authentic medical systems. The major distinction in their healthcare and treatment system and practices is that they are culturally rooted with prevalence of typical belief systems; the medical traditions are handled by specialists in their own community; magic and religion is used as tool for administration of medicine; and often, there are particular places like stream side, forest, shrines where particular treatments are given. For medicine they depend on local sources, mainly plant based medicines that are collected and administered fresh. Their tradition medical system and medicines are studied by scholars under several names like indigenous medicine, ethnomedicine, traditional medicine, tribal medicine, herbal medicine, phyto-medicine, natural medicine, folk medicine, alternative medicine and so on. Although each of the term used by specific

scholars have contextual meanings, yet for the purpose of a general understanding we refer the tribal system of medicine as ethnomedicine or traditional medicine.

Conceptual studies on ethnomedicine

Although many of the earlier workers have emphasized on utilitarian aspects of tribal medicine, very few have delved into the cognitive aspects of tribal medicine. The cognitively oriented scholars find traditional medicine ingrained in their belief systems, folklore and oral traditions. Elwin (1954), in his famous 'Tribal Myth of Orissa', has narrated the cosmological myths, creational myths of heaven and earth, vegetable world and animal world, etc., making the book a must reference to understand the tribal peoples world views, cosmology and the biological world. The book stands merit as an authentic reference for botanical myths of Odishan tribes. Further, a lot of relevant information for ethnobotanical studies amongst Saora tribes of Odisha has found place in his 'The Religion of an Indian Tribe' (Elwin, 1955). In a similar approach Das (2000), (Jena, 2000), Jena, et.al., (2013), Dash and Sahoo (2015) and many other scholars have highlighted the importance of folklore in ethnobotanical studies.

Most of the studies on traditional medicine of the tribal communities have been conducted in an ethnobotanical perspective. Ethnobotanical studies in India have mostly emphasized upon recording the traditional uses of medicinal plants by tribals, as is indicated by literature available so far. In India, as early as in 1918 Basu compiled 'Indian Medicinal Plants' which he revised with Kirtiker in 1935 in 4 volumes (Kirtikar&Basu, 1935). Bodding (1925 a,b) presented a monumental work - 'Studies on the Santal Medicine and connected Folklore' by studying the medical practices of the tribals of Bihar and Bengal. Majumdar (1927) wrote 'Vanaspati - Plant and Plant Life as in Indian Treaties and Traditions'. Ethnographers like Grigson (1938) and Elwin (1965) mentions about the medical practices of the Maria Gond Tribes of Bastar in Madhya Pradesh. Between 1948 and 1966 came the 'Wealth of India - Raw Materials' of Council of Scientific and Industrial Research (CSIR:1985) in several volumes by eminent Indian authors. It contains a wonderful account of the indigenous medicinal plants with their chemical ingredients arranged in alphabetical order. Between the years 1951 to 1957 Bhandari's 'VanaushadhiChandrodaya' came out in 10 parts in Hindi giving vivid account of indigenous medicinal plants and their uses. Dastur (1951) wrote 'Medicinal plants of India and Pakistan' while Santapau (1953) brought out 'The Flora of Khandala on the Western Ghats of India'. Verma (1955) wrote the 'Miracles of Indian Herbs' describing some of the indigenous herbs working as 'wonder drugs' in curing several diseases. Kurup (1977) wrote on Indian indigenous system of medicine.

Pioneer workers like Jain (1981) have opened up new vistas of traditional medicine with a summary of methodologies adapted for ethnobotanical research. He observed that ethnobotanical research acts as a bridge between botany and medicinal aspects of plants. Of recent researches, mention may be made of intensive work carried out in Madhya Pradesh, Bihar, Odisha, Andhra Pradesh, Bengal and Northern India (Jain, 1963a, 1963b, 1963c, 1964, 1965a, 1965b, 1967a, 1967b, Jain & Tarafdar, 1963, Jain, et.al.1973, Jain & Dam 1979). Jain points out, with reference to pioneer workers in ethnobotany that the researches on ethnomedicine have opened up specialized disciplines like the ethnonarcotics,

ethnopaediatrics and ethnogynaecology, ethnopharmacology. He also provides a brief review of the contemporary scenario of ethnobotanical studies in India.

Similar account on work on ethnomedicine is seen in Shah (1981). However, Shah has laid emphasis on drawing methodological approach and tools for undertaking ethnobotanical researches in India, and in the same pace has advocated the urgency of exploration of field resources as the tribal culture is changing fast.

The globalisation of the ethnobotanical research on medicinal plants is seen in Leeuwenberg's (1988) compilation 'Medicinal and Poisonous Plants of the Tropics', covering articles on the titles collected from all over the world. Ayensu S.E (1983) presented an ethnobotanical account of 27 endangered plants used in traditional medicine and has emphasized the need for conservation of the same.

O.P. Jaggi's (1982), account of 'Folk Medicine', published in the Volume III of History of Science, Technology and Medicine recognized two types of folk medicine: The Tribal Medicine, practiced by the tribals in forests and hills; and The Village Medicine, practiced by the villagers in major parts of India. Said (1983) in his 'The Potential of Herbal Medicine in modern medical therapy', recognized the importance of folklore in preserving the information of many valuable drugs having great potential for modern medical therapy.

Sinha (1998) investigated and documented the age-old wisdoms and knowledge of Herbal Vendors and barefoot doctors belonging to primitive tribal communities of Central India who have acquired knowledge about herbal medicines from their forefathers through accumulated experiences and often through experimentation on themselves. The author has presented his observations on the plants and plant products used by the Herbal Vendors as medicines; their active principles responsible for the biological action; and the diseases in which they are used as a cure. He is of the view that modern researches are often borne out of the efficacy of the many of the crude plant drugs used by tribals. He has cited many examples drawn from different ethnic cultures across the world to substantiate his view. Ghosh (2009) presented 48 empirical articles on indigenous knowledge of utilization of natural resources, presents good deal of information on use of plants by cross section of occupational groups including farmers, pastoralists, potters, dye makers, bee keepers, accupressurists, sacred grove conservators, herbalists and people interested in nature. The book contains relevant information having to build lateral learning links not only among innovators but also among scientists and public policy makers at national and international level.

Studies in Ethnomedicine of Tribes in Odisha and other States

Studies in ethnomedicine of Odishan tribes are very sporadic. The literatures available today indicate that some work in this direction in Odisha started during the 1980s. Before that some scholars did some work on the folk knowledge of plants and trees with reference to tribal communities in Odisha. However, research on tribal peoples' knowledge on plants and trees, especially in the context of traditional healthcare systems have been there since about last many decades. Most of the information and literature published by earlier scholars are of great value today in the context of ethnobotanical research.

The rich diversity of flora in Odisha was first of all documented by Haines (1921-1925). Haines could not botanise all the species of the State in his 6 volumes of 'The Botany of Bihar and Orissa'. Haines did not attempt to document the various uses of plants by the natives and forest dwellers. The subsequent worker Mooney (1950) in his book 'Supplement to the Botany of Bihar and Orissa', could bridge the gap in taxonomic documentation done by Haines by covering major parts of Western Odisha, but his work was focused on plant taxonomy. However, both Haines and Mooney documented many local names of plants which are very useful for identification of plants of ethnobotanical importance with reference to local names.

Researchers like Jain (1971), Saxena & Dutta (1975), Subudhi & Choudhury (1985), Sahoo (1986) have made some sporadic reports of ethnobotanical studies in Phulbani District of Odisha and their critical investigations are still in progress since 1985. Patnaik, (2000) tried to put forth their investigation on this district with regard to plants and aboriginal communities of the area. Many reports on the indigenous use of plants by the forest dwelling tribals and non-tribals have been published in different journals of Odisha and other States. However, the information contained in such literatures by and large emphasized on the medicinal and economic aspects of the plants and trees. Thothathri, et.al. (1990) reported certain plant species which yield oil and are being used for different purposes such as food, medicine, message oil, soaps, etc. Satapathy (1980-81) reported the magico-religious use of 40 plant species belonging to different families. In the paper, use of plants in human ailments, cattle diseases, warding off and exorcising ghosts and spirits, snake bites, other material advantages, are described with reference to tribals of Kalahandi district. Pal & Banerjee (1973-74) reported cosmetic use of plants in hair and scalp preparation basing on the information collected from tribals of Ganjam, Phulbani and Koraput districts of Odisha. Ghose, et.al. (1982-83) reported about 37 plants and their indigenous medicinal uses with mention about the habit and habitat of the plants, common names and parts used for different medicinal purposes. Safui (1982-83) mentioned about the economic values of certain plants referring the literature preserved in National Herbarea, Calcutta.

In Odisha, Gandhamardan hill ranges in the Keonjhar district is quite famous with a mythical recognition for its rich resources of medicinal plants, economically important flora and is a treasure of natural resources. Panigrahi (1963) during a survey program of Botanical Survey of India, conducted a floristic study, first of its kind, of this hill range. He documented about 220 indigenous species of medicinal, quasi-medicinal and economic plants. Kar and Patnaik (1978) in their findings put forth certain documentation in their perceptive paper 'Plants in folklore and literature', about the (i) tree worship in other parts of the world, (ii) tree marriage, (iii) tree the symbol of sex and fertility, (iv) magico-religious beliefs, (v) source of medicinal herbalism, (vi) role of scientists in folklore. The paper contributes to the understanding of methodological aspects of the study. Whether a society is ancient or modern, primitive or advanced, there are traditions of folklore which, once unraveled, would contribute useful information important from the perspectives of ethnobotanical studies. The medico-botanical lore is very often embedded in local folklores.

From a study of folklore, peoples' understanding of the nature and behaviour of plants can be interpreted. Ratha& Acharya (1988) reported certain plants and their parts which are used for religious performances traced from mythological texts, in worshipping god and during life cycle rituals. This article is not based upon any particular tribal or non-tribal community and is rather general, yet is of enormous importance to the studies in ethnobotany.

Saxena Brahmam and Dutta (1981) presented their observations on 83 species in 'Ethnobotanical Studies in Orissa'. The observations were recorded during the course of their survey in the undivided districts of Mayurbhanj, Cuttack, Puri, Dhenkanal, Sambalpur and Ganjam districts. The field work was done among the Kol (Similipal), Saora (Ganjam), Kondh(Ganjam) and other tribes of the State. A number of interesting tribal uses of plants in anti-fertility medicine and food have been described, most of which they claim, have been found new. Acharya, et.al., (1988) reported the safety and efficacy of herbal medicines used by primitive cultures, referring only to the therapeutic uses of certain plants. They have structured the information required to develop a framework for reporting the tribal uses of plants as medicine. Jena (1993) in his article, 'Ethnobotanical approach to Bael tree', has mentioned some uses of the parts of the tree in magico-religious beliefs and processes. The author collected information from tribals (KuttiaKondhs) and non-tribals (local Oriya community) living in Belghar area of Phulbani district, who sourced the knowledge from. ancient palm leaf inscriptions preserved by the local Oriya people of the area.

Das (1993) in his doctoral thesis has placed a number of plants and trees of ethnobotanical importance from his studies on Hill Kharia – a primitive tribal community in the Similipal hills. He has documented plants and trees used by the tribes for food, medicine, in material culture and other household uses, and recorded many observations and perceptions of the tribal people which are of ethnobotanical and ethnoecological significance. Patnaik and Jena (1995), in their paper 'Conservation of biodiversity: a tribal perception of Similipal biosphere reserve' placed useful information regarding the Hill Kharia people's knowledge of plants particularly of those which honey bees forage upon. The paper highlighted that the Hill Kharia of Similipal hills have considerable knowledge about the utilisation of plant resources around them.

Ethnobotanical research in Odisha gained momentum during the 1990s. During the last two and half decades, since 1990, many research programs in ethnobotany have been conducted by individuals and institutions in Odisha and many such researches are ongoing.

In the year 1997, Adivasi - the journal of Scheduled Castes and Scheduled Tribes Research and Training Institute brought out findings of two comprehensive studies on Tribal Medicine and Medicinemen based on exploratory studies on Bondo and Didayi, two well-known Primitive Tribes of Odisha (SCSTRTI:1997 a,b). The reports covered the socio-cultural profile of the communities; the tribes' perception of diseases/ailments/ deficiencies; medicinemen and their curing practices; indigenous medicines – preparation and administration; prescriptions and taboos, etc. That apart, the reports provided ethnobotanical accounts on 53 plants used in medicine by the Bondo, and 26 plants used in medicine by the Didayi. Biswal, et.al. (1997) provided a comprehensive account on

ethnobotany of Juang (PTG) of Odisha. The paper presented ethnobotanical account of certain edible plants, oil producing plants, plants used for household materials and other articles. These studies are indication of initiatives towards tribe specific ethnobotanical studies in Odisha.

A series of research on ethnobotany and ethnomedicine specific to primitive tribal groups of Odisha was initiated by the Department of Forest Policies and Forest Economics of Swiss Federal Institute of Technology in Switzerland. The results of the decade of research during the 1990s have been published as a series called Forest Tribes of Orissa. The volume -1 entitled Man in the Forest that came out in the year 2000, presented some valuable research papers based on empirical findings opening up the dimensions of ethnobotanical research with reference to specific Primitive Tribal Groups (PTG). Subsequently, there appeared a sub-series entitled Forest Tribes of Orissa. The first volume of the sub-series was a multidisciplinary study by Jena, et.al., (2002) on the DongariaKondh - a well-known Primitive Tribal Group (PTG) of Odisha that has been caught in the transition between an autochthonous lifestyle and fragments of modernity. The authors attempted to document the Dongaria's traditional knowledge of their natural environment; how they classify trees, plants, hills, forests, crops, and soils; and how so far, they have been managing their forests. The volume was an outcome of nearly ten year's research venture involving an interdisciplinary, intercultural team of sociologists, ethnobotanists, social anthropologists and other social scientists. The second in the Forest Tribes of Orissa series and sixth one under Man and Forest series was a holistic study by Jena, et.al., (2006) on KuttiaKondh, another designated PTG of Odisha. The authors have tried to document and thus safeguard its local traditional knowledge of conservation, use and management of forests and natural resources. They give an account of how the KuttiaKondh classifies trees and other plants, hills, forests, crops and animals. Their subsistence economy, agricultural system, social organization, religious beliefs and other important socio-cultural aspects of forest life have been extensively treated. The seventh publication under Man and Forest series and the third under the Forest Tribes of Orissa present a holistic study on the Juang community, another known PTG of Odisha was authored by Patnaik, et.al (2007). The authors have tried to document the indigenous knowledge of the community, apart from other things, in respect of Juang world-view with regard to various processes which are responsible for the destruction of the biodiversity of their habitat on which they subsist. It gives an insight into the various processes of environmental changes and the attitude of Juangs towards these processes, as well as the status of their indigenous knowledge which is under threat during the recent decades, particularly in respect of their prudent practices of resource use and management. The fourth volume of Forest Tribes of Orissa, eighth of Man and Forest Series is a study on Hill Bhuinya of Kendujhar (Patnaik, et.al. 2015) that presents how the Hill Bhuinya perceive their ecosystem; how their socio-cultural life is interwoven with the forests and other elements of their ecosystem; their management systems for upkeeping it; and the role their indigenous knowledge plays in their production, consumption and conservation practices, against the backdrop of a considerable depletion of biodiversity during the latter part of the twentieth century.

Merlin and Narasimhan (2012) discussed the history and importance of ethnobotany with specific reference to four tribal communities of Odisha, India. It begins with an account of the nature of the tribes involved in the study. Based on the preparatory fieldwork, it presents an insiders account of the tribal culture and its relationship with plants. It provides the ethnobotanical descriptions of 210 species of plants belonging to 77 families, presenting their local names, origin and the medicinal, cultural, culinary, economic, ecological uses of the species. It takes up study of the plants used by the tribes in the drug based and spiritual healing process elaborating the philosophies behind knowledge transmission such as divination, hereditary, discipleship and kinship. Related aspects such as disease diagnosis, diet restrictions and rituals are depicted in detail. There is a special chapter on forest and NTFPs that details the efforts of communities in forest conservation, their landuse patterns, forest classification systems, NTFP harvesting and consumption patterns.

Dash & Dash (2009)presents an account of the plants used in food, medicine and other aspects of socio-economic life of the Kondh community in general. Along with emphasizing the knowledge and wisdom of the Kondh community on utilization of plants for welfare and well-being, the authors hold their view that the traditional understanding of plant resources can help the mankind to find out the ecological inter-relations which even the modern ecologists and plant scientists would find difficult. Their knowledge of forest management can also be helpful for the conservation of many endangered plant species that are on the verge of extinction.

Mohapatra (2014) made a comprehensive study on another Primitive Tribal Group of Odisha, called ChuktiaBhunjia residing in the Sunabera Wildlife sanctuary and the Kondh communities residing in the vicinity of Karlapat Wildlife sanctuary in an ethnobotanical and ethno-ecological perspective. Mohapatra (2013) presented an empirical account of ethno-ecology of the indigenous tribal communities residing in the said Protected Areas emphasizing upon the relevance of ethno-ecological knowledge of the communities in achieving biodiversity conservation goals and at the same time, setting management modalities for co-management of Sanctuaries by active involvement of park authorities and the indigenous communities. Mohapatra, et.al., (2014) emphasized the fact that Odishan tribes are distinguished by their inexhaustible indigenous knowledge (IK) of plants, plantanimal interactions and the ethno-ecological perceptions on the nature and natural processes.

Singh (1994) in his study reveals that indigenous medical system of the "great tradition and little tradition," predominantly prevails among rural and tribal population. Indigenous medical system has become part of their culture and life and continues to be an important source of medical relief to them. The tribes of Chota Nagpur e.g. the Hos, Mundas, Oraons, Kherias, Birhors etc. live in the "land of forest" (Jharkhand) and practice indigenous medical system completely. But it is in peril due to large-scale deforestation, devastating mining and massive industrialization in the heart of tribal land.

Many other workers and scholars have researched into the ethnobotanical knowledge of tribal communities in Odisha and have brought out many unknown facts related to the use of plants in different aspects of local folk life, the notion of preservation and conservation, sacred groves and biodiversity conservation, domains of knowledge in ethno-medicine and ethno-ecology, so on and so forth. Jena et.al. (1997), Jena, et.al., (2000), Jena (2007), Seeland and Jena (2008), Behera and Jena (2011), Jena, et.al., (2013), Samantray, et.al., (2013), Jena and Seeland (2014), Jena, et.al., (2015) provide many authentic references to the studies in ethnobotany in Odisha.

Sociology of Health and Ethnomedicine

In recent times, a good number of studies have come up on sociology of health, yet studies on medical beliefs and practices of tribal communities are few in India. Most or the studies in this field have been done during last two decades in India. Scholars of sociology of health have focused their researches on ethnomedicine, indigenous medical system, family planning, socio-cultural dimension and interaction between traditional and modem medical practices. The studies associated with the field of indigenous medicine, ethno-medicine or traditional medical practices serve as an important theoretical background and broader conceptualization of this phenomenon.

The two established discipline - medical sociology and medical anthropology have made a very significant contribution in understanding the concept of health, illness, disease causation and their treatment. All these areas of studies are interlinked, yet for the purpose of convenience the various studies on health practices may be categorized into three groups; namely, ethno-medicine, interactional aspect between traditional and modern medical practices and the cultural aspect of medicine. The following reviews of literatures reflect the trend in research in ethno-medicine. Dutta (200 1) has analysed 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 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 local kabiraj (village quack doctor) for treatment.

Troisi, (1978) also observes 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. Troisi (1998) has given a detailed presentation on tribal religion, religious beliefs and practices among the Santals. He describes various kinds of supernatural spirits and powers, some of which are considered benevolent while others malevolent. These spirits are believed to have-a strong influence on the health of the tribals. The author illustrates, Hunter's classification of religious system as one of the terrors and depreciation and represents Santals as worshipers of malevolent spirits, whose sole aim is to cause drought, disease and death. The Santals believe in a number of spirits and deities, each of which is believed to perform specific function. The Santals also believe strongly on magic and witchcraft, which are associated with various sickness and diseases. Various supernatural spirits and powers are believed to be

responsible for various diseases and illness and proper sacrifices are made or propitiated to appease the deities or spirits for treatment of illness and diseases.

Singh (1994) in his summing up report of the keynote address by Dr. Roy Burman in a seminar emphasized that tribal health should be viewed holistically and in all perspective. Modern formal health system is inadequate to deal with tribal health because it touches only physiological aspects. On the other hand, tribal health system is a combination of herbal treatment acting physiologically, psychosomatics acting on the psyche and socio-psychology creating confidence in the individual and among the community, which may be described as health culture of tribes. The seminar also emphasized that tribal health system and the problem of health should be considered comprehensively and physical, psychological, socio-cultural, economic environment and concerned aspects should be taken into account. The author further argues that system of health traditionally prevalent among tribal communities must be recognized and proper documentation of medicinal plants, herbs, roots, seeds etc. are to be made.

Srivastava and Saksena (1991) have examined the socio-cultural contours of the health and disease that existed in the primitive era and even continue to exist in 19th century. In primitive era treatment was not based on rationality but depended entirely on magic, spells, prayers, manual rites and dance. A religious preacher or a magician administered medicine. The religious beliefs and practices are governed by cultural attributes along with the diagnosis and cure of ailments. According to him the notion of disease depends rather on decision of the society than objective facts. In India disease has been attributed to extrabiological reasons such as disobedience to natural and religious laws, wrath of gods, sins and crimes committed by a person in present and as well as in previous life. The author stresses the point that diseases cannot be isolated from socio-cultural milieu. Diseases are not purely biophysical phenomena. Thus, socio-cultural definition of disease is a dominant aspect of health and disease. So, in modern era preventive and social medicines are becoming integral part of everyday medical practice.

Sujatha (2003) conducted fieldwork among a group of villagers in Persimmon Thevar in Thirumangan District of Tamil Nadu. In this field study, the author has 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.

Basu (1994) has 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.

Thakar (1997) has discussed about ethnomedicine and tribal health concept and cure of diseases, which are almost same among all tribes. They have a strong belief in supernatural causes of diseases e.g. spirits, anger of deities, magic, witchcraft and breach of taboo. The diagnosis of diseases is simple, done by shamans or Ojhas or with the help of magicians. Guha (1986) made a study on the folk medicine among the Boro-Kachris, a plain tribe of Assam. He states 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 favoured for treatment of small pox.

Gupta (1986) has 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. Srivastava (1974) in his study on folk medicine in some villages of Rajasthan an Uttar Pradesh has shown that the villagers generally use traditional knowledge and practices, habits, custom, magico-religious treatment as folk medicine in treatment of disease and illness. Bhowmick (1980) highlights the concept of disease among primitive man and states that gods and goddesses are associated with various diseases. So, the treatment of diseases follows certain sets of religious rituals, prayers and procedures.

Patnaik (1990) studied sociology of health, with a focus on the general sanitary conditions of Barpali village, which was found to be very low and poor. Kar (1990) in his article, "Health and Sanitation Vrs Culture" observed that social and cultural traditions significantly influence health of any community. Kar and Gogoi (1993) studied health culture of the Noctes, major tribes of Arunachal Pradesh in the North East India. He pointed out that living condition of the people was responsible for most diseases. They also believe in supernatural causes of disease and treatment.

Joshi (1988) studied the traditional medical system among 'Khos', the Central Himalayan community. The 'Khos' usually do not differentiate between individual illness and other form of suffering. However, they relate illness and sufferings to natural and supernatural forces. They manifest the supernatural world in 'dos' and the natural in 'bimari'. The 'dos' embraces all kinds of sufferings and misfortunes indicating illness of individuals and calamities of a larger group while 'bimari' is indicative of bodily disturbances only. The

author classified the healers into several categories as per this specialization such as baman, mali-diviner, variyara, female specialist and doctor (non-traditional healer).

Behura (1991) made a study on the Koyas of Orissa. The author emphasizes 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. They believe village medicine men and 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.

Magico-Religious Beliefs in Ethnomedicine

Lieben (1973) discussed the field of medical anthropology. He stated that health and disease are measures of effectiveness with which human groups combine biological and cultural responses to their environment. He further pointed out that health and diseases are very closely related to cultural and biological factors. Anthropologists have made and interesting observation those health problems was related to cultural resources and social behaviour of the people. The author said that indigenous medical system tends to be limited with cultural boundary and some variations are also found with regard to diseases and their treatment, preventive as well as therapeutical measures. Thus, there is different ethnomedical therapist such as herbalist, diviners, shamans, midwife etc. So, the author establishes a close relationship between medicine and culture of the people.

Hughes (1968) made a study on ethno-medicine. The term ethno-medicine is used to refer to those beliefs and practices related to diseases, which are the products of indigenous cultural development. He outlines five basic situations, which in folk etiology are believed to be responsible for various illness-i.) sorcery, ii) breach of taboo, iii) intrusion of disease objects, iv) intrusion of disease-causing spirits and v) loss of soul. He focuses more on the study of indigenous medical system. Therapeutical practices in ethno-medicine relate to both supernatural and empirical theories of disease causation. Many of the folk medicine, specially, preventive medicine is related to cultural practices, which have an important functional implication for health. He stated that folk medicine does not change easily under the impact of even sustained contact with the industrialized world or even as a result of deliberate attempt to introduce new concept of disease and hygiene.

Sachidananda (1986) has also highlighted social and cultural factors related to health of tribals which acted as impediments. The health of tribals to a great extent was dependent on their social organization, culture and religion. Similar studies on tribal health care practices and tribal beliefs have been study by Medhi (2004) Jain & Agarwal (2005), Kumar (2003) and Joshi (2006).

Sridevi (1989) discussed about the "Modern Women, Tribal Medicine 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. Gorer (1987) highlighted 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. Bhasin (1989) in his study presents that the Lepchas of Dzongu (Sikkim) had 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 of disease and illness.

Khare (1963) made a detail analysis of the concept of Jamoga (tetanus), which clearly reveals that the people of higher castes perceive the disease with the idea embodied in great traditions whereas the people of lower castes seek explanations in supernatural forces. Hasan (1965) brought out an important observation and stated that cultural factors affect the health of a community like certain custom, practices, believes, values, religious taboos etc. may affect the health of community. Kakar (1977) gave a picture of primitive folk and modem medicine. The history of the growth of Indian medicine to a great extent was mixed with theology and magico-religious conceptions. The origin of diseases was attributed to gods and goddesses and also believed to be caused by ghosts and evil spirits. Therefore, diseases were identified and the common notion held that treatment or cure was possible both by herbs, charms, worships wearing of amulets etc. He was of the view that supernatural causes had a great influence on the health behaviour of people.

Foning (1987) 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 'Bonthings' which are ordained and have power to intercede and appease different 'mungs' or 'bongthings' 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.

Gelner (1994) observes that shaman is known as a 'Jhankri' in Nepali Language. A shaman is usually a male who gives treatment to the patient and also performs priestly functions. Gelner (1994) in one of his studies observes that a large number of cases of diagnosis in one Kirtipur healers' practice, a healer or a medium identifies 'spoiling action' as an action of a witch. The author points out that witchcraft and sorcery is widely prevalent in the Nepalese Society.

Levine (1987) made a study on the complex oracular possession and its importance in Hamla, a North Western District in Nepal. This study attempts to examine ethnic politics and ethnic interaction and tries to understand social inequalities in the region. His observation brings to light that the spirit possession finds the strongest support among the poor and the oppressed in every ethnic group. So, the author emphasizes that the poor and the powerless have embraced the tradition mainly for the purpose to encounter exploitation from socially and economically superiors.

Hitchcock and Johns (1976) 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.

Rizvi (1991) made a study on the medical belief and practices of Juansaris. He has attempted to categorize the illness and disease believed to be caused by the intervention of supernatural beings (e.g. gods or deity,) or a non-human being (e.g. ghosts, or evil spirit) and human being with a kind of supernatural power (witch or sorcerer). These broad categories are further divided into sub-categories according to causative agent recognized by Juansaris: Divine wrath e.g. wrath gods and goddesses for sins and crimes and disobedience to religion; Wrath of non-divine sources: e.g. evil spirits; and Ghosts.

Kannuri (2009) 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 behaviour and their health seeking behaviour. 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 disease causing illness by natural or physical reasons which includes 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.

Kapoor and Kshatriya (2009) have 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 e.g. super natural, ancestor spirit etc.; traditional way of treatment e.g. charm, animal sacrifice propitiation, worship; and their preferences remain with traditional healing practices.

Karuna and Babu (2007) highlight issues of tribal health, Nagla (2007) also brings out the relation between culture and health care where as Seth and Dubey (2007) have used secondary sources to examine the health situation of tribal community and they have pointed out that poverty, malnutrition, intensified inequality, remote and secluded settlement, neglect of Government etc. responsible for poor health status of tribals in India.

Interactional Aspects in Traditional and Modern Medicine Systems

Another area of studies gaining importance is the interactional aspect between traditional and modern system of medical practices. Some of the studies show the trend in this area. Bhadra (1997) has made a study on social dimension of health of tea plantation workers in some tea estates of Terai region of North Bengal, (West Bengal). These tea estates primarily consisted of several tribal communities such as Oraon, Munda, Baraik, Gond, Mahali, Kheria, Santal, Sonwar, Nagesia, Nagbansi, Malpaharia, Kisan, BhumiharRabidas, Kharwar

etc., besides some other caste like Nepalese and Biharis who are Hindus. The author has analysed the health culture of some major tribes e.g. Munda, Oraon, Baraik, Kheria, Ghasi, Mahali, Bhakata and Gond. He has taken a comparative perspective of health culture of tribal workers in tea estates-one having relatively good modern medical facilities and the other poor facilities. His observation is that still tribal workers believe in supernatural causes of illness and disease but it is losing ground today. Generally, the study shows that with proper, adequate and easily available modern medical facilities the tribal workers accept modern medicine. And in tea plantations where medical facilities are better, acceptance of modern medicine is higher than the one with poorer facilities. Most tribal workers are inclined to adopt and accept modem medical practices if easily available and accessible to them.

Basu and Mitra (2001) 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.

Pokarana (1991) has carried out an empirical study in Jaipur District in Rajasthan in seventeen Panchayat Samitis area to examine the socio-cultural dimension of health and disease. The observations of his study were that most of the villagers believed sickness or disease to be the result of sin and fault in previous or present life. And so, the villagers mostly consulted indigenous practitioners or traditional faith healers such as Ojhas, priests and Bhopas for diagnosis of various diseases. The personal hygiene and sanitary conditions of the villagers were found to be very low. The author puts forward his observation that the villagers rarely utilized the modem health services and facilities provided by the Government PHCs. But the villagers were not averse to visit private doctors and ayurvedic dispensary.

Thyagi (1997) has presented a descriptive account of his study on tribal health in anthropological perspective and puts forward hid view that the health of tribals depends on many interacting factors-such as poverty, malnutrition, poor sanitation, environmental factors and culture including life style, tradition, custom and culture associated with health. The author observes that culture influences the health behaviour of a community and the methods of treatment. In case of tribal communities the treatment sought most was indigenous methods of treatment by village traditional medicine men rather than modern doctor/medicine.

Mahanta (2003) deals with folk treatment system of the tribal society in Eastern India. He observed that in the district of Orissa, West Bengal, Assam, Bihar, Madhya Pradesh and Jharkhand tribal groups still lack education and communication facilities and modern allopathic system of medicine and so the tribal people still have strong faith in folk medicine available in the areas. The author has pointed out three methods of treatment given by 'Ojhas' - medicinal method, sound method and divine method of treatment. Some tribals of these areas still prefer to use folk medicine prepared from herbs, plants, roots etc. by the 'Ojha' and he is considered as a rural doctor.

Carstairs (1977) made a study on the existing faith with regard to illness and disease and their remedies in two villages of Rajasthan and pointed out that the villagers had a strong faith in herbal and magical treatment and cure. The reasons for such type of attitude are that the traditional herbalist or magical curers gave assurances of cure to the patients while modern doctor did not. However, it was pointed out that they were not totally averse to accept modern medicine. His important observation was that the people should be first made to accept the new and system and not introduce in a straightaway. Carstairs (1983) in another study on the concept of illness and levels of prevailing hygiene, made a significant contribution by pointing out the reasons why modern (western) medicine has failed to improve upon the health of rural folk. His important observation was that the villagers attributed the causes of disease to supernatural forces or being, such as witches or sorcerer. The villagers had shown a strong faith on their traditional healers. He pointed out that modern medicine was accepted as an alternative method and used when traditional methods failed.

Sahu (1997) studied the health culture of the Oraons who live in different ecological, social and occupational background. He has made a comparative study of the health behaviour of the Oraons - firstly those who live around Rourkela steel plant having access to rather sophisticated health facilities or Government health institution and some villages like Karbega and Hatibari having Government health facilities only. Some of the important observations of this study were that, 1. Social, economic, religious and political factors do determine the access of the tribals to health institutions; 2. Non-availability and non-accessibility to modem health facilities lead to relying on traditional method; and 3. Having opportunity of availability and accessibility the Oraons do accept modem medical practices and there are no strict traditional and cultural barriers to accept modem medicine. Xaxa (2008) has, in his study on the culture and ecology, stated that knowledge of the treatment of diseases was very closely related to the Oraon community and its environment. The Oraons extensively used knowledge of herbal medicines found in the region for treatment of diseases, like headache, tooth ache, stomach pain, ear pain, fever wound dysentery diarrhoea etc.

Kujur (1989) has dealt about the health and hygiene among the Oraons of Chota Nagpur. She observes that health and hygiene condition are important cultural indices of the Oraons. These indices are influenced by not only geographical milieu but in fact by the entire set of socio-cultural fabric of the region. The attitude to and awareness of the people, of conditions of cleanliness, health and hygiene are shaped through a long span of time, depending upon

the nature of interaction between natural and human constraints. The author remarks that the hygiene condition in an Oraon village is not conducive to a healthy environment. The general sanitation condition is low in Oraon villages. Cow dung pits are close to houses and there is practically no drainage system as a result the manure pits become breeding ground for mosquitoes and flies. The nearby ponds or ditches are used for rearing ducks, washing domestic animals as well as cleaning household utensils, clothes and bathing lead to highly polluted water and become cause for various skin diseases. The Oraons still have the traditional practice of keeping the domestic animals inside one comer of the dwelling houses. As a community, Oraons have very low personal hygiene practices. They take bath only once a week. As a result, they suffer from several common diseases like itches, scabies, typhoid, cholera, dysentery etc. The Oraons also relate diseases with a number of causes such as religion; wrath of gods, spirits, physical, and natural causes e.g. wounds, accidental fall, sprains, and aches of various kinds. But at the same time these suspicious sicknesses or iJJness are believed to be the actions of some occult powers. Thus, Oraons relate every sickness or illness to some spirit or wrath of gods. Therefore, the village doctor, locally known 'baid' is called upon for diagnosis and treatment of diseases. The 'baid' is believed to possess extensive knowledge of healing, herbs, roots and other ingredients needed for treatment. The author observed that in spite of faith in traditional healing or treatment, the Oraons have more faith in hospitals and health centres run by Christian Missionaries than the Government hospitals. The reason pointed out is that doctors and nurses are more friendly, caring and dedicated in Christian Missionary run hospitals. Thus, the Oraons are not averse to modem medicine in hospital.

Kar and Baruah (1997) have made their study on morbidity and health behaviour among the tea labourers, particularly the Munda tribe living in Chalkola and Athabari Division of Bokel tea estate in Dibrugarh District of Upper Assam. They have attempted to compare two divisions of tea garden-one Chalkola having better transport and communication facilities and the other Athabari having only rickshaws as means of transport from the National Highway. It was pointed out that the health culture was very low and hence tea labourers suffered from several common diseases. There were three sources of health facilities available to them, namely plantation source, Government source and indigenous source. Despite having modem health facilities, the Munda tribe had expressed strong faith in indigenous or traditional method of treatment. They were found to practise their own pre-existing health cultures.

Mital (1979) has analysed 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. Modem health practice was not common among them.

Kumar (2008) carried out and intensive field work among the Kolam tribe in a village, named Junnapani under Jainath Mondal in Adilabad District of Andhra Pradesh. He followed traditional anthropological ethnographic approach both participant and non-participant observation for collecting primary data. The Kolam tribe attribute causes of

illness to be both natural and super natural forces, active human agency like sorcery and non-human agencies like spirit (Daiyyam). So, ethnomedicine and indigenous healers play an important role in the health care system with in the socio-cultural realm of Kolam community. The author's observation was that the Kolam tribe still prefer ethnomedical practice due to cultural acceptability and accessibility, cost effectiveness, and more efficacy. So, the Kolam have different categories of indigenous healers who provide medicines as well as mediated people and the spiritual world. Maiti (2009), in his study on ethonomedicine among the Bhotias, traditionally, a trading tribe of Chamoli District in the state of Uttarranchal found that they still have popular healing practices for curing of various ailments. The author stated that the majority of Bhotias still prefer herbal to allopathic medicine. But the author's observation was that the health seeking behaviour of younger generation was shifting to modern allopathic medicine. Regarding concept of disease, he found that the Bhotias did not have clear concept related to disease or illness but all major ailments were attributed to supernatural forces.

Duarah and Pathak (1997) have discussed health practices among the Nishis, one of the major tribes of Arunachal Pradesh. Nishis practice animistic religion. The general health culture was reported to be poor. They attach least importance to health and hygiene during normal life. The Nishis have a wide range of indigenous method of treatment against various ailments. A strong faith in supernatural causes of illness and diseases are set to prevail among them. They also use local herbal medicine to a great extent. But it was observed that Nishis are becoming more conscious for better health under the impact of urban and semi urban areas. The third aspect of studies emphasized is the studies on medical behaviour of people on general. Recently, several studies have been done in this area.

Columbia and Wenzel (2000) give insight into the issue of health and culture. They stated that indigenous people all over the world - Scandinavian to Amazonian tribe, South Africa to American Nations, Australian aborigines etc., face problems due to traditional lands and life- ways being altered in the name of economic development. For indigenous people "health is linked to the health of the land, health of the culture and spiritual health. They stated that the World Health Organisation which defines concept of health as being physical, mental, social and spiritual wellbeing" (WHO 1946), does not cover the specific health habits and traditions of cultural and social meaning on health practices. The concept of health differs from tribe to tribe and nation to nation which is different for non-tribals. For indigenous people, knowledge of the land depends on contracts with other spirit world, which plays crucial part in ensuring health, reproduction of society, culture and the environment. For indigenous peoples, good health includes practising cultural ceremonies, speaking the language, applying the wisdom of the elders, beliefs, healing practices and values handed down in the community from generation to generation. So, while diagnosing indigenous health, one must reflect the oral and behavioural traditions of the indigenous people who look at health wellbeing from a comprehensive perspective. Key player in indigenous culture are the elders, who play a crucial role in maintaining health of the community. So, they reflect cultural context and values, which are not taken into account in health development. For indigenous people knowledge, beliefs, and cultural practices exists at many levels. But indigenous peoples all over the world including American Indians are faced with number of health-related problems - old way of diagnosing and healing illness have not survived due to migration, changing ways of life. Skills have been lost. Modem health facilities are not always available for indigenous people.

Graham (1985) analysed 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 status of health such as occupational behaviour, recreational pattern, dietary habits, and religious prescriptions. He discussed various sociological factors related to diseases.

Srinivasan. (1987) has discussed the reasons for the failures and underutilization of Primary Health services by rural folk. His observation was that factors for underutilization were inaccessibility, cultural. beliefs, practices and prejudices. Singh (2008) 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 analysed socio-economic and cultural factors that influence health care system. His finding was that distance factor had hindered utilizing public health facilities. The visit of Government run health centres, especially for vaccination, immunization and child delivery. Despite this 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, ineffective health and nutritional services were the major factors for poor health status among the tribals.

ETHNOGRAPHY OF TRIBES UNDER STUDY

The research project has targeted to cover information of many tribes in connection with their traditional medicine. The tribes covered under this study includes Bonda, Bhuiyan, Bhumij, Bhunjia, Dharua, Didayi, DongariaKandha, Gadaba, Gond, Juang, Kharia, Kisan, Kolha, Koya, Mankirdia, Munda, Oraon, Santal and Saora. These tribes are distributed in different pockets of the State, especially in Northern, Southern and Western tribal belts. In order to introduce the tribes a short and comprehensive ethnographic account on each of the stated tribes have been mentioned hereunder.

BONDA

Location and Identity

The Saora economy of the past had been based only upon shifting and terrace cultivation. Now-a-days they have taken up varied occupations to improve their economic conditions. Now they practice shifting, terrace and low land paddy cultivation and also horticulture. However, horticulture is finding more favour as against the other forms of cultivation, especially cashew plantations. All these forms of cultivation in addition to the sale of forest produces provides for their subsistence. Since these Saoras have very meager land holdings, many of them are now migrating to Assam and Arunachal Pradesh to work in tea estates there. There they have established saving co-operatives by making regular collections from its members. This money is disbursed as loans at the time of need. One who takes a loan must pay back in kind of labour.

Way back in their homelands, the women are more laborious and hard working. They put in a good contribution to their household economy. They are the principal workers in the household as well as in the fields. The men, away from their homeland, equally labour hard for benefit of their employers. Saoras also find employment with the Government, private service, and temporary wage-earning sectors, temporary employments and even small businesses.

Bonda tribal community inhabits the remote highland country within Kondakamberu ranges of Eastern Ghats rising on the eastern side of Malkangiri district. The Bonda country is a high land covered with thick vegetation of sub-tropic and semi-evergreen type. They are one of the 13 Particularly Vulnerable Tribal Groups (PVTGs) of Odisha. The 1st Micro Project of Odisha named Bonda Development Agency (BDA) is functioning at Mudulipada the heart of Bonda country since 1977 to bring about their all-round development.

They speak a language called Remo which comes under Austro Asiatic language belonging to Mundari group.

Settlement and Housing Pattern

Hill Bonda settlements are situated on high level lands such as hill tops and hill slopes surrounded by bounties of nature. Access is difficult through zigzag hilly tracks. There are large and small villages. The village meeting place - 'Sindibor' is built at a convenient location within the village. The two principal deities worshipped are named Hundi and PatakhandaMahaprabhu.

Bonda live in small thatched huts. The walls are made of bamboo frame plastered with mud and cow dung. The domestic animals are sheltered in separate sheds. The Bonda huts are divided into 2 rooms – the larger compartment which is used as sleeping –cum – cooking room is about 8 ft in width and 6 ft in length with some raised platforms to keep utensils and water containers. The smaller compartment is used as grainary. A kitchen garden (dinrbui) is raised in the backyards or in the vicinity.

Dress and Ornament

The Bondas use conspicuous for their scanty clothes to cover their private parts only. Men wear Gosi, a loin cloth whereas women wear Ringa or Nadi, a striped and coloured cloth tied to the waist thread. Women cover their upper portion of the body with beaded necklaces that hang down till naval and other necklaces of different colour. The other ornaments include aluminium bands in their neck, head bands of beads or glass, aluminium bangles, nose rings and anklet etc.

Clan and Kinship

Family is the smallest social unit among the Bondas. It comprises, the man, his wife and their children. Most families are nuclear type. The family is patrilocal. Bonda society is broadly divided into 2 moeities or bansha called: Ontal (cobra) and Killo (tiger). In due course, a village which was once inhabited by a single clan became multi-clan due to population exogamy, growth and movement.

Life Cycle Rituals

The most important events of life are birth, marriage and death and each event are observed with certain rituals by the Bondas.

After the birth of the child, the family and kin group observe birth pollution for 9 days. On the 9th day purification rite is performed.

Marriage is the most important stage in the lifecycle of Bondas. The selection of spouses is left completely to the choice of the children. Once the selection is final, the parents give consent and marriage rite is performed. The regular form of marriage is called, Sebung. In a few cases, marriages are performed through intrusion. But, majority of the Bonda marriages are performed through capture. Widows are allowed to remarry the widowers in the society. The most interesting feature of the Bonda marriage is that the wife is often older than the husband. Older girls prefer to marry younger boys who would earn for them when they are old.

They believe that death is the work of evil spirits, black magic and witch craft. They practice both cremation and burial. After death the corpse is wrapped in white cloth and placed on the funeral pyre. The eldest or any male agnate usually sets fire to the pyre. Kingdak or final purificatory ceremony is held on the 10th day.

Social Life

The Bonda moieties or Bansha such as Ontal (Cobra) and Killo (Tiger are totemistic in nature. Ontal is held superior to Killo group. The next bigger social unit above family is the exogamous patrilineal clan organization which is called, Kuda or Manda, which comprises a number of families who are believed to have descended from a common ancestor. Though there are different kudas in a village who live separately with their identity, they share a common Sindibor, obey a common leader, Naik and a magico-religious head, Sisa. Thus, the village became the most important social unit.

Fairs and Festivals

They observe various festivals like Bondafun or Kuree in the month of June – July, Push parab in the month of December – January, Magha parab in January – February and ChaitaParab in February – March. They have also adopted Hindu festivals like Dassahara and Diwali.

Economy and Livelihoods

The Bondas are mainly agriculturists. They practice shifting cultivation quite extensively. The other sources of their livelihood are gleaning, hunting, fishing, animal husbandry and wage earning. Bondas have been depending upon food gathering as a source of subsistence. Both male and female use various implements for collection of tubers. The Bonda economy is centered round rudimentary agricultural pursuit. They are famous for slash and burn type farming and shift cultivation.

In leisure hours, they trap birds and animals. They also go for ceremonial hunting in group. After the prey is killed, it is equally distributed among all the families in the village. Fishing is very rare in Bonda country. They rear cow, bullock, buffalo, goat, pig, sheep and fowl.

The scope of wage earning is very much limited as the Bondas are reluctant to go to the plains. On the other hand, Goti or bonded labour system is in vogue in the Bonda society.

The major supplement of family income is the sale of minor forest produce (MFP) collected by them and rearing and selling of domestic animals and birds. Women are the backbone of Bonda society. They play a pivotal role in running the family. They also carry out the major market transactions.

Social Control

Bonda villages are traditionally autonomous. Social discipline is maintained by a set of traditional functionaries - Naik- the village chief, Challan - the organiser of village meetings and Barik - the village messenger. The legal authority is vested upon the Naik. These village officials regulate and work for people under their jurisdiction. Disputes regarding property, quarrels and conflicts are also discussed in the traditional council.

Changing Scenario

The Bondas are extremely aggressive. Their strong sense of equality, independence, age-old isolation, poverty, indulgence in excessive liquor consumption are some of the attributes of the tribe that makes it different from other. The Bondas have now gradually adopted cultivation of wheat, potato, high yielding paddy, pulses etc. they are now following transplanting method for cultivation of ragi. The tribe is gradually becoming mainstreamed and have adapted to many development processes over the years.

BHUIYAN

Location and Identity

The Bhuiyan, a historically famous Bhuiyan tribe are found in Bihar, Odisha, West Bengal and Assam. They are found in Sundargarh, Keonjhar, Mayurbhanj, Sambalpur and Angul districts of Odisha. The PaudiBhuiyans are identified as one of the Particularly Vulnerable Tribal Groups (PVTG) of the State and reveals its distinctive socio-cultural features.

The Paudi Bhuiyan speak local Odia which is pronounced differently. Many Bhuiyan villages are devoid of all-weather roads because of geo-physical constraints Areas around the Bhuiyan settlement are without thick forest due to practice of slash and burn type of rotation cultivation.

Settlement and Housing Pattern

The Bhuiyan villages comprise 5 to 20 families and a few villages are also there having about sixty families. The Juang, Munda and Kolha tribes and Hindu caste people, like Gouda, Kamara, Gudia, Khandayat etc live in their close proximity. Previously the Bhuiyan were changing their village sites specially when the forest around the village are exhausted and villagers suffer from divine curse leading to spread of epidemics, tiger menace, breach of cholera and repeated crop failures. When GaisiriKhunta is broken or uprooted they take it as divine warning for changing the village site. While selecting a new site, they give importance on perennial water sources and virgin forest at close proximity. Moreover, successful divination in omen reading on the proposed site is equally vital for selection of a new site to establish a settlement. The Paudi Bhuiyan villages are mostly located on hill slopes, valleys and on top of hills. The villages are full of mango and jackfruit trees and during rains the settlements become swampy with thick forest growth, in and around.

The Bhuiyan houses are very neat and clean. The walls are plastered with cow dung and locally available red earth. The women are very conscious of keeping the house attractive throughout the year. The courtyards and backyards are swept every day for keeping it clean. The houses in a village are dispersed here and there within a particular boundary. Each family maintains its house with a kitchen garden where they grow pumpkin, gourd, chilly and other vegetables along with maize. During winter they grow tobacco and mustard there. The cow sheds are constructed close to the living house. The construction of a new house is started usually on Wednesday or Friday. The house heads undertake a ritual to appease the concerned deity.

The living house of the Bhuiyan is rectangular in shape having sloped thatched roof supported by wooden rafter and pillars. Walls are plastered with mud. Doors are made of bamboo splits and well to do people use wooden frame for doors and planks for shutters. They make verandah at all sides of the house. The house is divided into three distinct portions. The inner most portion is meant for storing grains and important articles of the house. Middle portion is used for cooking and ancestral spirits are installed there. The same room is also used for sleeping. The area having the hearth is considered sacred and outsiders are strictly prohibited to enter inside, because the ancestral spirits may get angry and make the family members suffer. A separate shed is built for guests, outsiders, and women during delivery. Buffaloes and cows are kept in separate shed. Goats and chickens are given shelter in one side of the living house.

Dress and Ornament

The male persons usually put on dhoti, banians and shirts and women wear Saree and blouse. They also adorn their body with traditional ornaments like bangles, armlets, anklets, necklaces, nose rings, earrings etc. made of different metals. The women decorate their buns with hairpins and colorful flowers.

Clan and Kinship

The family is considered as the smallest social unit. It is patrilineal. patrilocal and patriarchal. Members in the community are related with each other by birth or by marriage. Marriage is strictly prohibited among the agnatic kins. The spouses are always selected beyond the agnatic groups. The Khilli is the maximal lineage or extended group. After marriage a woman becomes a member of that family. Even an adopted son-in-law becomes a member of the family of his father-in-law. The properties are always inherited by the sons and the eldest one gets a little more. Married daughters cannot demand any immovable property. One can find nuclear family, joint family, extended family amongthe Paudi Bhuiyan but now-a-days nuclear families are very common. It depends on the members of the family either to accept to live jointly or prefer to have their respective independent establishments.

Life Cycle Rituals

Life cycle rituals of a Paudi-Bhuiyan comprises birth, childhood socialization, adolescence, adulthood, old age, death, death rituals.

A woman is expected to give birth to a child and her baren-ness brings her position low in the society. A male child is preferred over a girl child in their community because girls leave their parents after getting married. Traditional midwife takes care of the baby and woman. The naval cord is usually cut by the mother or grandmother by using an arrow in case of a male child and with a bamboo split in case of a girl. The birth pollution continues from a week up to three months. However, rituals are conducted in phased manner to make the family members free from pollution. Name giving ceremony may be observed on seventh day

The Paudi Bhuiyan marries within the tribe to cognates but the marriage is strictly prohibited among agnate, which is considered incestuous. They have very clear-cut idea about Kutumb groups (agnates) and Bandhu groups for conducting marriages. Marriage is monogamous but one can remarry if the first wife does not give birth to a child. Marriage by negotiation (MangiBibha) is mostly preferred but it is very expensive and time taking. Marriage by elopement (Dharipala) and marriage by capture(GhichaBibha) are common as these are less expensive and easier to acquire a life partner. There are love marriages; by putting flower on the bun of a girl (Phulkhusi) or by throwing mango to a girl (Am lesera) or by putting mud on the body of a girl (Kadalesera). A man can also marry a widow following social norms and values. The marriage ceremony is very expensive and payment of bride price is a must.

Death to them is due to unhappiness of the gods, goddesses, deities, spirits and black magic. The agnates and cognates attend and carry the corpse to the burial ground. The first handful of earth is put by the eldest son, which is followed by other kiths and kins. When a pregnant woman dies rituals are somehow different because pollution period lasts for only two to three days. They call back the soul of the dead at home and enshrine their ancestral deity inside the main house.

Social Life and Social Control

The Bhuiyan people are related to each other in a specified social network based on consanguinity and affinity. They behave each other in a prescribed pattern giving due respect to their age-old practice of social norms and values.

The Bhuiyan are having well organized traditional council. Naik is the secular head, however, Dehuri also plays vital role in the traditional council. Some well to do and local persons of the community also take part in the discussion. Of course, everybody is empowered to put forth their views but a few Bhuiyan elites only take active part. Now-adays traditional leaders and elected emerging leaders together form the council. The decisions are based on consensus.

The secular head Naik or Gauntia or Pradhan as they are known differently in various regions is the ruling chief for administrative purpose. Three or more villages join together under a wide traditional organisation, called Pirha or Bar where inter village disputes are resolved. Pirha has its functionaries to perform certain prescribed works.

Fairs and Festivals

The PaudiBhuinya celebrates a number of feasts and festivals throughout the year like Maghpadi, Kath Jatra, GilorJatra etc. Each festival is associated with; specific deities, gods and goddesses, ritualistic observance, special food items agricultural cycle, activities relating to forest, shifting cultivation, hunting, fishing, food gathering, life cycle rituals, etc. It provides opportunity for interaction and get together between kin members and relaxation from monotony and boredom of daily routine works. They enjoy, merry make and revive their zeal and interest for celebrate Am Nua in the month successful endeavor.

Economy and Livelihood

Other than shifting cultivation and plains agriculture they also depend on food-gathering, hunting and fishing to supplement their food. They collect mushrooms, tubers, roots, shoots green leaves, fruits, berries and nuts, seeds from the local forest either for consumption or sale. Almost in all the seasons Bhuiyan people collect variety of minor forest produces like lac, sal resin, char many kinds of wild rope, firewood, leaves for making cups and plates and several others which they sell in the market. By and large forest plays pivotal role in the socio- economic life of the Bhuiyan.

The livestock of the Bhuiyan people comprises of cow, bullocks, buffaloes, goats, sheep, poultry etc. The animals particularly goats and chickens are domesticated not only for consumption but also to be sacrifice at the deities. They engage persons to tend cattle or the same work may be performed on rotation basis among themselves. They have attached rituals for safety and security of their cattle wealth.

The Bhuiyan are well known for their basketry work Their area is very rich in bamboo and people are quite skilled in bamboo craft hence, in leisure hours they make varieties of baskets, paddy containers, winnowing fans, bamboo mats and other such items of different shape and size. Their basketry work is having a lot of demand among the neighboring groups. The women are expert in weaving mats out of date palm leaf. The Bhuiyan exchange their agricultural and forest produce for their daily necessities, like rice, salt and the like. But, now-a- days they sell their marketable commodities for money and pay cash for any purchase.

Changing Scenario

Being one of the primitive tribal communities, the Bhuiyan are facing a lot of difficulties in the economic front. Due to the ban imposed on shifting cultivation, rapid extinction of forest, the people are forced to become wage earners and indebted in absence of alternative means of livelihood. Further, this has resulted in the out migration of people in search of employment. In the recent past, massive developmental programs have been launched by the government for the uplift of weaker sections. Although various anti-poverty and income generating scheme are being implemented through agencies like DRDA and ITDA, it is still felt necessary that for Paudi Bhuiyan, at least 2 microprojects should be established.

BHUMIJ

Location and Identity

The Bhumija are one of the Hinduized tribes found largely in the district of Mayurbhanj. Etymologically, the term 'Bhumij' means one who is born from the soil. Dalton classifies them as Kolarian on linguistic ground. Racially they are Proto–Australoids. Risley says that Bhumija resemble Munda most closely in speech and manners. They are dolicocephalic and platyrrhine people with wavy hair and dark complexion.

They now speak a kind of broken Odia which they have borrowed considerably from Bengali. But, in olden days, the tribe had their distinct original tongue.

Settlement and Housing Pattern

A village consists from 10 to 60 houses, even more, belonging to the Bhumija. Other tribes and castes like Santals, Kharias, Bathudis, Hos and other Hindu castes are also found to be living in these villages.

The houses though constructed in the plains are not arranged in any order. They live in commodious two sloped houses. Most of the houses have two rooms. The rooms are utilized as kitchen, bed room, store room and cattle shed. All the rooms have permanent doors but no windows. Houses are constructed of bamboo and sal saplings, tied with grass ropes and thatched with straw. The walls are made of bamboo and sal saplings and twigs plastered over mud on both sides. Their houses contain portico which is used by them for entertaining guests. Besides this, they construct wooden racks over which grain containers are kept. At one end of the house, a separate shed for cattle is made.

Dress and Ornament

As regards dress and ornaments, they follow the Hindu neighbors. Children of both the sexes go naked up to 4 or 5 years. Then, they wear a towel (Gamucha) or a pant till adolescence when they start wearing clothes.

The male dress consists of a shirt, a dhoti and a towel. The towel is kept on the shoulder. The women wear sari and blouse called Jakit. The sari worn is generally of white color. During winter, they use the sari as a wrapper for protection against cold. In summer, men do not use shirt when they are in the village. The young girls are fond of ornaments. They purchase various brass ornaments such as nose rings, earrings, bead necklaces, armlets and bangles. They also wear flowers in their hair particularly at weddings and festivals. These dress and ornaments are purchased from the market.

Clan and Kinship

Bhumij society is divided into 4 endogamous groups such as Tamudia or TamariaBhumij, HaldipokhoriaBhumij, TeliBhumij and Desi Bhumij. Of these, Tamudias occupy the highest place in social precedence because of their traditional occupation of shaving.

All these sections have now left their traditional practices but have retained their endogamous divisions, with much emphasis on caste ranking. Each class forms an endogamous group of its own so that a TamudiaBhumij will not marry a HaldipokhoriaBhumij.

Each section of these groups consists of a number of exogamous subgroups called Killi. However, it is a strictly exogamous group, and marriage within it is considered incestuous.

Most of the families among the Bhumija are of nuclear type, consisting of husband, wife and unmarried children. The children set up their own families soon after marriage. They are patrilineal. Descent and inheritance are traced through the father's side. The family is patripotestal.

Food and Drink

Rice is their staple food and is eaten throughout the whole year. Like Hindus they eat dal and vegetable curry if they can afford to. They abstain from taking beef and pork but eat white ants, termites and insects like the Bathudi and Sounti. Rice beer is their favorite drink. Mohua liquor is used sumptuously during feasts and festivals.

Life Cycle Rituals

At birth, a woman is attended by a midwife belonging to the Hadi community. The umbilical cord ic cut with a knife and buried inside the lying-in room in a corner. Birth pollution is observed for 9 days. During this period the family is considered unclean. They follow cleansing rituals on the 10th day. They have no dormitory system. In the absence of this, training in tribal customs, folklores etc is imparted to the child by his or her family members.

The clan system regulates marriage, and adult marriages are in vogue. The most common means of acquiring a bride is through negotiation and payment of bride price. Marriage by capture, service and intrusion are also prevalent. Levirate and sororate types of marriage are also prevalent. Sanga baha or widow remarriage and cross – cousin marriages are in vogue. A matchmaker or Dandia arranges the marriage.

They cremate the dead, except for those below 12 years of age, who are buried, as are those who die of cholera and smallpox. In the case of the death of a pregnant woman the embryo from her womb is taken out through an incision in the abdomen. The incision is stitched up again. The embryo is buried beneath a mahua tree, the idea being that it will live on the juice of that tree. All the members of the family and relatives of the deceased are considered unclean for nine days. On the 10th day, they go to the nearest stream with a priest, so-called Brahmin of their own tribe, a barber and a washer-man.

Economy and Livelihood

The Bhumija are agriculturists. They are settled cultivators having their own land. They are settled cultivators having their own land. They grow only one crop, Paddy, in wetland. They grow some rabi crops as well.

In the paddy fields the sowing starts in the month of May – June. The seedlings are raised in a small plot before being transplanted. Transplantation takes place in July – August and harvesting, weeding is done twice or thrice by both sexes.

Besides agriculture, they work as agricultural labourers in other's field. After the harvest, when they cannot find any wage earning, the males go to work in the mining quarries and the tea gardens of Assam. They stay there for 3-4 months and come back again when their agricultural operation commences the next year.

Hunting, which was a gainful economic pursuit in the past, has been given up due to depletion of the forest and restrictions imposed by Govt. However, the main occupation at present is mostly supplemented by wage- earning and forest collection.

Social Control

The headman is called the Sardar. In all cases of violation of social rules, the Sardar convenes a meeting of the elders, who enquire into the dispute, hear the necessary evidence and punish the delinquents. Generally, a fine is imposed which is spent for the purchase of rice beer and a goat for a feast. Cases of theft and murder are brought to the notice of the court. The office of the Sardar is not hereditary.

Fairs and Festivals

The Bhumijas are the sun under the name of Sing Bonga and Dharam, both of them being considered to be their supreme deities. They also worship a host of minor gods and spirits. They believe in ghosts and spirits.

Most of their festivals are connected directly or indirectly with agriculture. In the month of chait, they worship at siva temple and offer sweets, mil and flower. Dhulla puja is held in the month of Baisakh for the wellbeing of the village. Asarhi puja commences before reploughing and transplanting seedlings. VadhnaParab is held on the day of the new moon in the month of Kartika before reaping and Nua-khia, the ceremony for eating new rice. The festival of Makar falls on the first day of the month of Magha. They also observe Saharae during Diwali when cattle are worshipped by the priest. Besides this, the Bhumij, like other tribes, practice ancestral worship on all occasions.

Changing Scenario

Under different plans and in different periods, schools, roads, wells and cottage industries have been built in their area. As such their contact with non-tribals have led them to accept many things from the customs and practices of the Hindu people.

BHUNJIAS

Location and Identity

Bhunjias are numerically a little-known tribe mostly residing in Kalahandi district and Raipur district. They belong to Dravidian Racial group. Besides Odisha, they are found distributed in its adjacent Raipur district of Madhya Pradesh.

The etymological meaning of the term Bhunjia is "growing out of land" coming from two words, Bhum – 'the earth' and Jia – 'dependent on' and the Bhunjia think themselves as the fore-runners of those who landed on the earth first.

The tribe has been divided into two main sections namely the ChukutiaBhunjia and the ChindaBhunjia, the former represents the original section of the tribe and later the acculturated section of the tribe. The Chukutia sections are ubiquitously found in the adjoining area of the Sonabera plateau and the ChindaBhunjias are found scattered in the plains with other ethnic groups.

The chukutiaBhunjias are believed to be the mixed descendants of Halbas and Gonds. The conflict on illegitimate origin has led to strict rules of social purity amongst the community.

The ChindaBhunjia are believed to be derived from Binjhwas. Their pedigree being more reliable, they are less particular about their social purity.

socially the tribe is divided into two exogamous moieties, the Netam and the Markam. The former stands for NijiBanshi (the consanguineal relatives) and the later stands for Suraj Banshi (the affinal relatives). They speak a dialect which is a mixture of Odia and Chhatisgarhi.

Settlement and Housing Pattern

The Bhunjia villages vary in size from as small as 7 to 10 households to as big as 50 to 60 households. They believe that the village boundaries are guarded by gods and goddesses who protect infiltration of evil spirits.

Houses are arranged in a peculiar way. Two or more households taking a wide open space build their individual houses there. Houses are made up of mud and are thatched with wild grass.

The Bhunjia houses has three parts. The biggest one is used as the living cum store room. The hut adjacent to it is used as the cattle shed. The most striking cultural land mark of the Bhunjia is their sacred kitchen-shed, the smallest part of the house, which is built apart from other huts of a household and is fenced around so that no outsider can have any physical contact with the shed. In case by mistake anybody touches any part of it, the same is immediately set on fire and razed to the ground. For that period the food is cooked in an enclosed space until a new shed is built up. The kitchen-shed is one of the sacred places and no woman during her menses is allowed to enter into it. Kitchen-shed continues to be held as a shrine. The houses are devoid of doors. The walls and floors are plastered with cow dung or colored earth.

The main and the supreme deity of the Bhunjia is Sunadei. She has imposed some restrictions on her devotees. Some of these restrictions are the use of tiles for roofing, the cots and beds for sleeping, the country husking lever for paddy husking and the wearing of blouse by the women.

Dress and Ornament

The men wear a piece of cloth and better people wear undergarments and shirts. Women generally wear sarees with no concept of blouses or undergarments. They use a lot of ornaments like necklaces made of beads and coil, glass and brass bangles, anklets and earrings of aluminum or silver.

Clan, Kinship, Family and Social Life

ChuktiaBhunjia family is nuclear type consisting of parents and their unmarried children. Their family is patrilocal, patrilineal and patriarchal. Marriage in Bhunjia marriage is called byhaghar and cross-cousin marriage is prevalent among them. There is no restriction in marriage between ChuktiaBhunjia and ChindaBhunjia. But in such cases a rite called dudhpani is performed when a bandhu washes the mouth of the bride with milk before she is

taken in as a member of the groom's family. Dinwari, the traditional priest conducts the marriage.

The Bhunjias prefer adult marriages. Generally, marriage age for boys is 20 and for girls is between 14 – 18. Monogamy is practiced. Second marriage is allowed to the man whose wife is barren. But he has to take the consent of the first wife.

Divorce is only allowed when there is an extra marital affair, illicit sexual affairs, frigidity of woman, indolence or quarrelsome nature of wife or ill treatment.

Social Control

Social distance maintained by the Bhunjias with other castes reveals that they strictly abide by their traditions and customs. They consider it polluting to eat cooked food from outsiders. Males may eat food from Gonds and Gours if cooked in metal pots, but the women never eat anything cooked by outsiders.

The Bhunjias also maintain certain food taboos. They do not eat beef, pork or buffalo meat. The women observe more taboos than the men. They never eat outside. On their way to far off places they cook their own food. While at home they eat in the kitchen which is considered to be their sacred hut. Menstruating women are not allowed to enter into the kitchen or to the cowshed. While at outside the women do not eat usuna (rice husked after the paddy is boiled) rice as such rice touched by an outsider is considered to carry pollution.

It is very difficult to state definitely as to why the Bhunjias strictly observe a series of such taboos and maintain social distance with other castes and tribes to such a degree. It is, of course a common belief among the tribals to consider themselves the first-born human beings of the earth and thereby claim superiority over others. It seems, therefore, that the Bhunjias, like other tribes consider themselves superior to all other castes and tribes by virtue of their priority in being the first born human race on the earth, and they further try to raise their status in the society by observing a series of taboos and adhering to strict principles of austerity.

Russell and Hiralal (1916) hold the view that because the Bhunjias are a product of racial admixture of two ethnic groups, they are, therefore, highly suspicious about the racial purity of others. They therefore, observe all such taboos and maintain social distance from others to raise their social status. Such suspicion goes so strong in their mind that among their own group they take sufficient precautions to free themselves from social pollution.

Whatever the reason may be the fact that the Bhunjias observe strict rules to maintain their social purity cannot be doubted. This not only keeps the Bhunjias away from other communities of the society, but poses serious problems for social workers to implement welfare schemes among the Bhunjias without affecting their cultural norms.

Economy and Livelihood

The economic life of the tribe is very simple and of subsistence type. In order to maintain their subsistence, they practice low land paddy cultivation and shifting cultivation in small patches. The produce from lands and the gleaning from the forest provide them just the bare minimum. Small land holdings and the primitive method of cultivation hinders them to prosper in the field of agriculture that resulted in their poor economic condition day by day. So whatever food one gets from all sources is less than that required for consumption. So, the question of saving or surplus does not arise.

They are in the habit of carrying on shifting cultivation which is called Bewar, a term used by the Gonds of Madhya Pradesh for such type of agricultural practice. It is a co-operative practice i.e. the labour is available to each household without any payment. A particular piece of land is cultivated for three consecutive years after which it is kept fallow for 3 to 4 years and thereafter it is again taken up for growing crops.

Changing Scenario

Under different plans and in different periods, schools, roads, wells and cottage industries have been built in their area. As such their contact with non-tribals have led them to accept many things from the customs and practices of the Hindu people.

DHARUA

Location and Identity

The Dharua or DharuaGonds are one of the oldest tribes of Odisha and are found in different districts of the state. According to Russel, the word Dharua may be derived from dhur or dust, that is, the common people, and they are inferior to Raj Gonds. The Dharuas closely resemble the Negro type. They are of medium stature with well-developed chests and massive shoulders, and the nose is broad. Their hair is black, coarse and curly, and they have scant growth of beard and moustache. In most districts, the Dharua form one endogamous group. Some large septs, especially the Mika and Dharuva, are divided into a number of sub-sects within each of which marriage is not allowed.

Clan and Kinship

The father acts as the head of the family and manages it. The income of all the family members goes to headman, and it is headman's duty to fulfill the needs of the family members. Both nuclear and joint families are found.

Life Cycle Rituals

Marriage is an important social obligation. In the Dharua community the father is over anxious to get his sons and daughters married off early. There is no fixed age for the marriage of both the sexes, except that they should marry as early as possible. However, the practice of both infant and adult marriages are found in Dharua community, but under Hindu influence they are more inclined to adult marriage. Marriage is generally undertaken by parent's consent. Sinduradaan and marriage to a mango tree form a prominent part of the ritual of this tribe, and the marriage ends with water being poured over the bride and groom by a barber.

The Dharua burn the corpses. Before the dead body is taken to the funeral ground, it is anointed with oil and turmeric and is wrapped in a new cloth. The dead body is generally carried by the clan members to the funeral ground and disposed of there. The kith and kin of deceased mourn and observe death pollution for a temporary period of three days, after which they purify themselves by bathing. On the third day they make offerings of food to the departed soul.

Economy and Livelihood

In olden times, the Dharua were mostly agriculturists by occupation though some of them were employed in the military service of the native Rajas. But in course of time, a great change took place in their economic life. Now besides being agriculturists, they are found in different wage-earning professions. They are indifferent cultivators and consequently the yield from their land cannot provide for the family's consumption. However, national plans are being worked out to provide them with ample opportunities for their economic development.

DIDAYI

Location and Identity

The Didayi are a small primitive hill tribe of Koraput inhabiting the 4000 ft plateau of Eastern Ghats range. They are divided into two groups: a) Hill Didayi and b) Plain Didayi. It is interesting to note that there are no social ties between the hill and the plain Didayi groups.

The name by which Didayi know themselves is Gntre meaning Man and the name Didayimeaning wild people have been bestowed to them by outsiders. They speak a dialect closely similar to the language of Gadaba and Bonda which belongs to the Mundari group. The plain Didayis have incorporated several Telugu words in their dialect due to influence of contact.

In Odisha they are listed as one of the Particularly Vulnerable Tribal Groups (PVTG). The Didayi possess a number of primitive characteristics and the Government of India have rightly declared them as one of the primitive tribal groups found in the state.

Settlement and Housing Pattern

The hill Didayi villages are located within rugged mountainous terrain between river Machhkund and the Bonda hills. The hill villages are less compared to villages on plains.

The houses lie scattered with no regular street. Unlike other tribes, the houses are individualistic with no shared roof. The Didayi houses constitutes of two rooms, a front verandah and a small open space before house. The house is fenced all around called asturrah. They worship the *Mahapru* – the protector of earth.

Dress and Ornament

The hill Didayis are comparatively dirty with regards to dress, habits and mostly keep long locks of hair called gunagbo.

The Didayi are a well built, medium statured, brown complexioned, squarish faced, and flat nosed people possessing coarse and wavy hair, scanty bodily hairs and narrow eyes.

The traditional dress of women is known as "Kisalu", a self-made short, unstitched clothing made of natural bark fibers and thread. It has now been replaced by long sarees available in local market. The Didayi women are fond of ornaments made of silver, gold, aluminum and alloys.

Clan and Kinship

The social organization of Didayi society is characterized by moiety and totemism. The whole society is divided into two exogamous segments or moiety each composed of totemic group of clans. The Didayi kinship is based on 2 exogamous clans: (1) Ghia (Ghia sig, Gudia , Majhi, Muduli, Surma and Sisa), (2) Nta (Nta, Mleh, Gushuwa, Golpeda, Palasi and Kswa)

Life Cycle Rituals

The institution of marriage is the most significant event in Didayi social life. Monogamy is the common practice although very few cases of polygyny are also found. They prefer adult marriages and bestow freedom to choose their own partners with least parental interference.

They have traditions of different types of marriage such as: Bihay/ Toshu (marriage with negotiation from both sides); Marshaboyi (cross - cousin marriage); Gube (marriage by capture of the bride); Udulia (marriage by elopement); Posia Mundi (marriage by forceful intrusion of girl into a family and establishing sexual relation with a man); Gharjwa (marriage by service). Marriage season is between January and June. Monday, Tuesday and Wednesday are considered auspicious for marriage.

Economy and Livelihood

The traditional subsistence economy of Didayi is mainly dependant upon cultivation supplemented by hunting and food collection. Both the groups cultivate Ragi and Suan extensively, which is their staple food.

The hill Didayi still continues to practice the traditional shifting cultivation. Even though, it requires minimum and simplest kind of supplements, manure and other inputs, the output is inadequate to fill their stomach for the whole year.

The plain Didayis are socio-economically better off than their hill brethren. They have been used to settle themselves permanently taking up plough cultivation and wet land cultivation wherever possible. They use better implements, domestic animals, organized endeavor and skills to cover larger area effectively.

The Didayi men, women and children go in small batches of 2 to 8 persons with digging sticks and baskets to procure wild fruits, roots and tubers in all seasons. Mohua flowers and seeds are procured for brewing liquor and extract oils. Kendu leaves used in manufacture of bidis are collected to get money by selling them to local contractors.

Didayis are hunters with their bows and arrows of which they are very proud of themselves. Presently the paucity of animals, restrictions on hunting and the economic change over to plough cultivation have limited their scope but could not redeem the importance of hunting.

Fishing is a pastime of Didayis dwelling in the banks of MachhkundRiber and perennial streams. The hill Didayi rear few animals like dogs, pigs and cocks. The plain Didayi keep cattle for ploughing and supply of meat.

Social Control

They are a small and distinctive group depending largely on simple form of agriculture and forest collection, having simple tools and limited items or material belongings and are still governed by their customary laws administered by traditional village panchayat, led by the secular headman and the priest.

Changing Scenario

In order to bring them to the ambit of development the Didayi Development Agency has been constituted that is taking care of the holistic development of Didayis. The state government has also extended development measures for their health, education, economy and livelihoods, infrastructure and all other sectors to make their quality of life better and bring them to the mainstream.

DONGRIA KANDHA

Location and Identity

The DongriaKandha constitute a primitive section of the Kandha numerically the largest among the 62 tribes of Odisha. For being the denizens of hills, forests and highlands (dongar), their neighbours name them Dongria but, they call themselves 'DongranKuan' or 'DriliKuan'. The DongriaKandha inhabit the lofty Niyamgiri hill ranges spread across Bissamcuttack, Kalyansingpur, Muniguda blocks in Rayagada district. It is an enchanting hill country endowed with bounties of nature. The topography is uneven. The high altitude of the DongriaKandha habitat has made the climate cool and pleasant. The soil and climate are favourable for raising horticultural plantations.

They stand apart from others for their famous Meria festival, expertise in horticulture, separate language -Kuvi and colourful dress, adornments and life style. They are very simple, happy and straight forward and upright in their conduct. They have a lot of respect for their gods, goddesses, deities, spirits and unseen powers. They are very superstitious in nature. They are basically outspoken and occasionally become aggressive.

Settlement and Housing Pattern

The DongriaKandha villages are located in the hill-slopes hilltops or valleys in a tangle of thickly wooded hill ranges. The habitation site is chosen upon the availability of sufficient land for shifting cultivation and a perennial source of water.

At the village entrance within mango grove and jack-fruit trees the shrine of the village deity- JatrakudiPenu is installed in a thatched shed. Its walls are painted with beautiful coloured geometric designs. It protects the people from evil-eye.

The typical DongriaKandha houses have low thatched roofs hardly 2-3 ft above the ground. Built upon a rectangular ground plan it consists of a spacious rectangular room and another small room (Dhapa) at the back with verandahs in front and back. The living room is used for sleeping and dining. Often a ceiling like platform is built inside to store food grains and other sundry articles. A small partition wall separates the kitchen from the main room and keeps it out of the sight of outsiders. Houses are located in two parallel rows leaving a wide street in between.

Dress and Ornament

Dongria men and women are quite fashionable in their personal adornments, that makes them attractive and distinguish them from others. They put on a long and narrow piece of loin cloth in such a way that the two embroidered ends hang in the front and the back. This piece of cloth is termed, drili. Dongria women use two pieces of cloth (Kapda-Ganda), each, 3-4 feet in length and one-and half feet in width. The first piece is wrapped round the waist with a knot in the front. The second piece covers the upper part of the body, like an apron.

Dongria men grow long hair to distinguish themselves from other sections of the Kandha and prepare braided locks, like the females at their scalps. Men and women put on aluminum neck rings, beads & coin necklaces (Kekodikaj, finger rings in bunches. In addition to that women wear bangles, anklets, toe rings.

Clan, Kinship and Social Life

Mostly, Dongria family is nuclear, monogamous and patrilineal consisting of parents and their unmarried children. When a son is grown up and gets married, he sets up his own house and lives there with his wife and children.

The family acts as an economic unit. All the capable adults and children above 8 years of age toil in the field and contribute to the economic pool of the family. Men do the hardest works, such as ploughing cutting trees and digging holes etc.

Women besides their routine housekeeping and child care activities also take up subsistence activities, like cleaning of bush, thorns and thickets in the fields and hill slopes and make the field, dibble seeds, weeding, reaping etc.

As denizens of hills and forests DongriaKondh live in close harmony with nature. Both the material and non-material aspects of their culture are profoundly influenced by nature. This has generated a sense of beauty among them and given birth to a natural artist within each of them. They are lovers of beauty which is reflected in their colourful lifestyle and more conspicuously in their distinct style of dress and ornaments, dance and music and arts and crafts.

In this context their traditional youth dormitory functions as a school of learning for the youngsters. The dormitory members get the scope to learn the rhythms of dance and music,

and techniques of making art and crafts, often by imitating the seniors. It serves as a centre for preserving their cultural heritage and folk tradition, in addition to transmitting the same from generation to generation. The younger girls in the dormitory learn needlework from the elders. They are also taught the art of playing their traditional musical instrument, Goani.

The Dongria men and women sing songs and dance in all festive and ceremonial occasions.

Life Cycle Rituals

A Dongria man marries to have children and continue his progeny. It elevates his status to a full-fledged adult member of the society. Boys and girls belonging to the same clan are considered brothers and sisters. Hence marriage within the clan is strictly prohibited. The Dongrias prefer adult marriage and arranged marriage. Payment of bride price is customary for acquiring an eligible bride. Demand for high bride price often leads to clan feuds.

The Dongria believe that, life (Jarmana or Jurma) and death (Hateyas) are determined by the Supreme Being, Darani Penu who has created the world. The cause of death is attributed to malicious agencies, like the evil spirits, black magic or the wrath of gods and deities. They fight tooth and nail to save a person till his/her last gasp by administering their folk medicines and performing all sorts of magico-religious rites.

Economy and Livelihood

The lives of DongriaKandhas revolve around the forests which is the main source of food, firewood, Herbal medicines and raw materials for house construction.

Paucity of plain and wet lands and natural conditions have made them shifting cultivators. In their swiddens, called Haru they grow a variety of crops comprising cereals, pulses, legumes, fruits and vegetables, roots and tubers. A Haru owned individually is cultivated for 3 - 4 years and left fallow for 4 -5 years for regeneration. Dongrias are skilled horticulturists. Taking advantage of favourable climatic conditions they raise jackfruit, mango, citrus, banana, pineapple and turmeric plantations in vast stretches in the hill slopes right from valley bottom to the hill top. In their kitchen gardens (Bada) lying close to the settlement site they also grow mango, jackfruit and vegetables like gourd, pumpkin, bean, brinjal, chilly etc.

Dongria continue their age-old subsistence activity of food gathering from the forest. They go for hunting and trapping of birds and animals to get non veg food items. They derive a good income from orchards, fruit trees and selling of turmeric, ginger and forest produces.

Social Control

At the village level, a set of traditional village leaders and the village council exercise control. They shoulder all responsibilities, participate in all social activities and influence the life of their fellowmen.

Jani, the priest, is formal secular and ritual head of the village and village council. He presides over the village council meetings. He is the custodian of the norms, customs and social sanctions. All important matters are brought to his notice for opinion and

intervention. Depending on the gravity of the matter, he may convene a meeting of the village council to decide the issue or may settle it himself. He can alone worship the Supreme Deity, Darani-penu. His post is hereditary. He does not demand any remuneration for his services. But villagers give him the head and a large share of the meat of sacrificial animals in communal rituals and hunts.

Bishmajhi is the revenue collector and village fund manager, whose secular position comes next to Jani. He collects land and forest revenue from the households of the village and fines imposed on offenders by the village council. He presides over the village meetings in absence of Jani.

Changing Scenario

The process of change has put them in a transitional phase. But they are still in the mooring of their traditional way of life. After adoption of Tribal Sub-Plan (TSP) Approach from the 5th Plan period development of DongriaKandha is being looked after by the dedicated agencies such as two Integrated Tribal Development Agencies of Gunupur and Rayagada and two Micro Projects i.e., DongriaKandha Development Agencies (DKDA) of Chatikona and Parsali, all operating in Rayagada District.

The impact of planned change and modernization are visible in their way of life. On the other side, their traditional dormitory and kinship organizations are weakening. The Dongria are in a state of flux. Old customs, beliefs and values still hold good. Inspite of the changes, their social structure has retained many of its basic characteristic features.

GADABA

Location and Identity

The Gadaba are one of the colourful tribes of Odisha. They are mostly concentrated in the southernmost part of the state, in Koraput and Malkangiri districts, where they are found in large concentration in Lamataput, Simliguda, Pottangi, Nandapur and Khairput blocks. Although some of them understand Odia well, their own language is known as Gutob. The name Gadaba seems to have been formed of Gada+ba the final syllable meaning pertaining to or belonging to.

Settlement and Housing Pattern

The Gadaba build their homes in two rows facing each other, with a broad gap left between them. The headman's house is the biggest and generally stands in the middle of one of the rows. The unmarried young men and women are not allowed to sleep with their parents at night. All the maidens sleep in one place and all the young men in another place, far removed from that of the maidens. For this purpose two houses are set apart in each village, one for the maidens and the other for bachelors. None of the maidens is permitted to go at night to the bachelors' home, nor should a bachelor go to maidens' home.

Dress and Ornaments

The Gadaba use very scanty clothes for their dress. The menfolk use a piece of cloth called a lenguthi with a flap which hangs down in front. But those who have come in contact with outsiders wear a dhoti and shirt. The womenfolk wear a long strip of cloth commonly known as kerang tied round the waist, and a second piece of cloth is worn across the breasts and fixed at the left or sometimes right shoulder with a large knot. The children up to the age of four or five either go naked or use a piece of lenguthi. Better off people generally use more expensive cloth than the poorer section of Gadaba.

Gadaba women are fond of wearing a number of ornaments to decorate their bodies. The ornaments are generally made of brass or aluminium. The hair is neatly combed and they use hair pins. Generally, it is found that the elderly married women wear a peculiar type of earring which is made out of silver, brass or aluminium. They also wear ornaments in their noses and on the fingers. They use bangles, which are made of brass. No tattooing is worn.

Clan and Kinship

The Gadaba are divided into five divisions: the Bodo Gadaba, the ParengaGadaba, the Sano Gadaba, the OllarGadaba and the KapuGadaba. In social status of the Bodo Gadaba enjoy a higher position than other divisions. The family is the smallest unit in their society and is mostly nuclear. After marriage sons reside neolocally. The family is patrilineal, patrilocal and patripotestal. Gadaba society is divided into a number of phratries orBbonso. Each bonso has a surname of its own. A number of bonsos come under one group known as the clan. These are exogamous and totemistic. Gadaba clans include kora (sun), nag (cobra), bag (tiger), kora (parrot) and collari (monkey). Although the totem objects have lost their importance over time, they still worship them occasionally.

Life Cycle Rituals

At the birth of a child the mother is considered impure for about 15 days. The name giving ceremony is observed on the tenth day when child is given a name. Usually the Gadaba name their children after the days of the week in which they were born in consultation with Disari, the village astrologer. The infant stays at home with other brothers and sisters and received a lot of care. After the child is able to walk it does not depend on its parents so much and gradually picks up their food habits.

Adult marriage is in vogue among the Gadaba, although child marriage is not rare. Generally, girls marry at the age of 14 or 15 years after attaining puberty and the boys at 19 or 20 years. Marriage within the clan is prohibited and is hence exogamous. Monogamy is the rule, although in the exceptional cases polygyny is practiced. This happens when the first wife is barren. The other grounds for such a marriage is the sexual frigidity of the first wife. The different types of marriage the Gadaba follow are: arranged marriage, Udlia marriage, Paisamundi marriage, Gharjwain marriage and widow marriage. Among all these types, arranged marriages, though expensive, are held to be ideal. Divorce is permitted in Gadaba society with the approval of the caste council. Both husband and wife can divorce each other on reasonable grounds.

When a person dies, the corpse is taken to the burial ground, which is located far away from the village. Family members and relatives follow the corpse amidst loud cries. If a man dies his wife must follow the corpse to the cremation ground and in case of a woman dying the reverse is done. After the dead body is disposed of, all the mourners go to a stream, wash themselves and catch fish. These fish and some cooked rice are left on the way leading to the cremation ground. On the tenth day a feast is arranged in deceased's house in which the pall bearers and kinsmen participate.

Fairs and Festivals

The Gadabas believe in many gods and goddesses, the chief of them being Thakurani. There are also clan gods who are worshipped on different occasions. They also believe in ghosts and spirits. The place of worship is known as hundi.

The important festivals of the Gadaba are Bandapanaparab, dasaharaparab, pushaparab and chaitparab, which are celebrated in odia months of shrabana, aswina, pausa and chaitra. The Gadaba celebrate these festivals with the utmost care, sincerity, devotion and fear. These are celebrated with great joy and happiness amidst drinking and dancing for days together.

Economy and Livelihood

The economic life of Gadaba mainly centres around agriculture. This is supplemented by the collection of forest produce, hunting and fishing. The people attach more importance to agriculture than any other economic pursuit, as it is their principal source of livelihood. Subsidiary occupations, such as collecting forest produce, hunting, fishing and wage-earning etc. Are only seasonal and are practiced more as a matter of habit than anything else.

Shifting cultivation, commonly known as dongarchasa, was extensively practiced by the Gadaba formerly, but nowadays the practice has declined considerably. The hills around Gadaba villages are devoid of thick vegetation, due to its repeated destruction by the people, and because of this many of the hillocks are now barren, with their parent rock materials being exposed. A mixed crop of ragi, suan, minor millets and niger is grown in their swiddens. In the lowermost portion of the hillocks patches of plain land are available, which are best suited for paddy cultivation irrigated by the permanent hill streams. The Gadaba grow different varieties of paddy on these lands.

The agro-climatic conditions of the area are highly suitable for horticultural plantation. Among the fruit trees jackfruit and mango are plentily found in the forest. The Gadaba sell these fruits in large quantities in the nearby markets. The people also gather firewood from the forest for their domestic use and sale. The womenfolk collect sal leaves in large quantities from the forest and sell these in the market.

The Gadaba domesticate local varieties of cows, buffaloes, goats, pigs and poultry. They do not breed cattle either for sale or for selling milk. The cows and buffaloes are used for ploughing. They do not milch cows, as this reduces the animal's strength.

Social Control

The Gadabas have their own way of managing the internal affairs of the village through their traditional political organization, which plays a vital role in strengthening village solidarity and cooperation. Every village has its own traditional panchayat headed by the Naik, the secular headman. He is assisted by a challan or attendant and a bearer or Barik. The Barik belongs to the Domb caste and communities' declarations to the villagers and acts as a messenger for thee individual families. The function of the challan is to assist the Naik in holding village meetings, and in entertaining guests, outsiders, government officials who visit the village from time to time. The village council holds its meetings regularly and decides intra village disputes and such other matters as breaches of social laws etc.

GOND

Location and Identity

The Gonds are found spreading over the hill tracts of central and south India. They are one of the numerically dominant tribal groups in India. The Gond or Gondi, a scheduled tribe of Odisha, is a tribal peasant community. During the British India, the Gonds had challenged the British rulers in several battle fields sporadically. The history records them as a warrior community.

The name Gond is derived from the Telugu word Konda meaning the hills. Most of the Gond people speak Gondi dialect, closely related to the Dravidians. A few of them use Indo Aryan dialect including Hindi and Odia. Gond settlement extends mostly over the hill tracts of central India known as Gondwana land. They are found dwelling near the hills and forest areas of Madhya Pradesh, eastern Maharashtra, Chhattisgarh, northern Andhra Pradesh and Odisha. As a petty business community, their nativity is traced to Madhya Pradesh. They are concentrated in the state of Odisha in districts like Nabarangpur, Sundargarh, Sambalpur, Bolangir and part of Kalahandi.

Settlement and Housing Pattern

The heritage of Gond house craft reflects their persistence to socio-cultural tradition. They plan and design as per the cultural necessity. In past, the Gond people used to consult their forefather before they construct a house. Their house building materials are made up of locally available resources like loamy soil, bricks, wood and bamboo shafts etc. befitting their cultural needs and designs.

The lineage wise house arrangement and construction of houses in linear pattern is an ethnic marker. With the increasing population and expansion of additional families, the sparse distribution of big house becomes essential. With the passage of time they started downgrading the linear type of house arrangement with kitchen garden, cattle shed and front court yard. Now they appreciate sparsely distributed houses in the village.

Dress and Ornament

In the traditional costume of the Gond community, the attires of boys and girls reveal equal status. Both grow their hair long, fix combs on buns and use jewelries, and adorned

themselves with decorations. The boys often outshine the girls in decoration. They wear beads, tusks of boars, feathers and anything colourful that was available. They wear ornaments made from Gold, silver and brass. During festivities they wear a brass neck band called Paduka. They even wear coin necklaces.

They also wear bangles, toe rings, nose ring, earring, anklet and many other ornaments made of silver or brass. Besides, they typically mark tattoos as permanent decoration on their body surface. Tattooing is done before puberty else it is viewed as inauspicious. With time, the traditional dhoti, lungi and towel have been replaced by modern dress materials like jeans, T shirt and trousers.

Clan and Kinship

In Gond society, the family is mostly of nuclear type. It comprises of father, mother and unmarried children. The extended families are also found among them. Gond families are patriarchal and patrilineal. The head of household is usually a male. At family, clan and community level, there is a clear-cut division of labor among the members based on age, sex and status. The family members help each other during the time of need.

Their kinship indicates relationship through blood and marriage. It plays important role in the regulation of behavior and formation of the social groups. It prescribes avoidance and joking relationship to regulate sex behavior between kin members. The kin groups maintain their socio-cultural boundaries on the basis of totem and performance of difficult activities as per village norms derived from their original habitat.

Life Cycle Rituals

Their birth ritual starts from special rite to acknowledge the joy of pregnancy. The expectant is considered sacred and bestowed with strength of ancestral spirits. After delivery the first ceremony called Narta, is performed on the 9th day of the birth of the child. On this day, all the polluted clothes of mother and other family members are washed and all the members are sprinkled with water mixed with cow dung for purification. On the 21st day, they perform the ritual named as Ekoishia. On this day, the clothes of the lineage members are ritually purified. So also the house is smeared and purified. The mother and the new born take full bath.

Among the Gonds, clan / sub clan exogamy is regarded as the basic principle of marriage. The tribe has exogamous totemic clan divisions. Cross cousin marriage and marriage by negotiation are common. Marriage by service is socially permitted. Marriage is celebrated with many pumps and ceremonies. Marriages are preferred within the close relations mostly according to Hindu rites and customs. Sometimes mock elopements are also arranged. They prefer arranged marriage. The other forms of marriage that are followed are love marriage, widow remarriage, sororate and levirate. Polygamy is practiced seldom. Divorce, remarriage, widow remarriage is common.

After the death of a person, the message is sent to kin. The relatives are immediately called upon. The entire kin and kith like daughter and sons-in-law come over to console the bereaved family. Till the 10th day, they observe food taboo, movement taboo and dress

taboo. On the 10th day, a purificatory ritual is performed at the village pond. On the 12th day, food and rice beer, some clothes and money are offered to the priest.

Food and Drink

The dietary habit of Gonds is simple. Rice is their staple food. The general food habit of the Gonds comprises of watered rice, mix vegetables curry, dal, pickles and at times fish or dry fish. During festive occasions their menu is added with chicken and mutton curry. Animal sacrificed at ceremonies are eagerly consumed by them. The meat of game animals supplements their diet.

They take locally brewed liquor, like rice beer, rasi, mahuli etc as important cultural items. Usually, their immediate neighbor the Munda community prepare these drinks and the Gonds purchase from them for consumption mostly during rituals and festivities. They smoke bidi prepared by hand with locally available tobacco rolled by tender sal leaf.

Economy and Livelihood

Generally, the Gonds as peasant community work hard to get their livelihood. Their inadequate peasant economy is supplemented by forest produce, fishing, hunting, and other primary sector activities. A few forge metal goods in cottage industries add to their earning. They use bullock ploughs for tilling the soil. They mainly produce rice. Besides rice cultivation, they grow potatoes, tomatoes, brinjal, beans, leafy vegetables, wheat, maize, small millets, ragi, mustard, black mung etc. All crops including cereals and pulses are cultivated in rain fed fields. They consume vegetables as well as sale them for cash to meet other household essentials. They are multi crop growers.

For maintaining their economic life, they go for organized fishing. They catch fish individually and in group by help of bamboo nets and traps and also sell them for maintaining the family. Hunting adds to their subsistence. They prepare their own bows and arrows as hunting implements. Their traditional communal hunting has gone into rituals due to paucity of games and wildlife conservation laws.

The village cattle herds are grazed and kept in field during lean season strategically to increase fertility of land due to organic manure. They have their own traditional inventory and pattern of preserving grains for future use, for seed as well as for consumption. After harvesting different crops, they process and bask them in sunshine for a few days and then they prepare grain bins with hay rope to be kept on a raised bamboo platform to preserve paddy, maize and other cereals and minor millets harvested.

They have bovines. They domesticate cows, goats and buffaloes for milk and meat. They keep draught animals and duck, fowls etc for food and during exigencies they sale in the local market.

Fairs and Festivals

Usually, the Gond festivals relate to important agricultural activities and seasonal events and human life cycle events from birth to death and aftermath. The Gonds observe two

major festivals, such as KeslapurJathra and Madai. While the celebration of KeslapurJathra is marked with worshiping the snake deity, the Madai festival is celebrated to mark the occasion of meeting relatives settled in other part of the country. The Chaitra festival held in the month of March is very common for fruit eating ceremony and as well as sowing new crops. Their festive life is always filled with animal sacrifice made by ritual head of the village Dehari.

Social Control

The Gonds have no formal kin based hierarchical political organization, to treat the disagreements; however, they are not without leaders. The Gond village community forms the basic political unit through its village council. This village level democratic organization is headed by Majhi. The other members like village chief, priest and watchman, and few others are chosen by the villagers. All sorts of disputes are discussed and resolved by the village council. Their traditional political structure has been weakening due to modern Panchayati raj system. The social esteem of traditional leaders is losing grounds. They are being marginalized at the rise of the politically affiliated members representing the Panchayati system.

Changing Scenario

the Gonds of plain areas are Hinduized due to acculturation. Yet they maintain the identity of their own. The establishment of schools by the ST and SC development department and Department of Education, Government of Odisha has been a noble intervention for desired transformation of the Gonds in social sector. Similarly, extending infrastructure facilities through development agencies and units like Anganwadi Center and PDS centers etc at village level, the Govt of Odisha tries to create a sustainable socioeconomic support system ranging from food security and safe drinking water measures, mobile health units and empowering the women.

JUANG

Location and Identity

The Juang are a tribe found only in Odisha. The community can broadly be divided into two sections, namely the Hill Juang and Plain Juang. The Hill Juang are confined to the hill ranges of Keonjhar and Pallahara, whereas the Plain Juang are distributed among the plains of Dhenkanal and Keonjhar districts. The Hill Juang are still in primitive stage, subsisting mainly on shifting cultivation whereas the Juang of the Plains have taken to settled agriculture. In Pallahara, they pursue basket-making in addition to their traditional shifting cultivation.

They are medium in stature with long heads and high cheek bones. The complexion of their skin varies from light brown to dark brown. They have their own language known as Juang. Nowadays they are also speaking Odia.

Settlement and Housing Pattern

The Juang live in homogenous villages located at the foothills or in the valleys surrounded by forests. Some settlements are situated in the plains. The villages present a scene of scattered houses. A unique feature of the Juang settlement pattern is their frequent change of village site.

Each village has a number of village sites and the villagers live in one site for a number of years after which they move to another site. Many reasons are attributed to the change of the village site, the main reasons being the shortage of taila land, the spread of epidemics, frequency of deaths in the village etc. Nowadays they live in permanent villages.

At the center of the village is a dormitory house called the majang or mandaghar. This is their community house. Juang huts are small in size and are used for multiple purposes. They can only accommodate one couple and young children. The grown-up sons sleep in the mandaghar. Cowsheds are built near the huts. The walls of the hut are made of wooden pillars plastered with mud and cowdung. The room has no ventilation except one entrance.

Dress and Ornament

The dress of the Juang is nothing unusual. The men wear a dhoti, the women a sari. School going children wear shirts and pants while other children use napkins. The women adorn their body with varieties of ornaments such as bangles, nose rings, earrings, toe rings, anklets, armlets made of brass or alloy and multi coloured bead necklaces of different designs. Women like to have tattoos on their foreheads and arms. This is considered necessary to enhance their beauty.

Food and Drink

The Juang diet is neither standardized nor systematic. During the agricultural season they eat food grains while during the off season they satisfy their hunger with leaves, fruits, tubers etc. rice is the favorite food of the Juang. The Juang are extremely addicted to liquor and drink different varieties such as mahuli, rice beer, toddy and liquor made from maize and other cereals.

Clan and Kinship

Ordinarily the Juang have nuclear families consisting of a husband, wife and unmarried children. Grown-up sons after marriage remain separated. Extended families consisting of a married couple and elderly parents are also not uncommon. The family in the Juang society is patrilineal, patrilocal and patripotestal.

The most characteristic feature of the Juang social organization is their village exogamy. The village is uni-clan and marriage within it is forbidden.

The clan is a unilineal descent group whose members trace their origins back to a common ancestor. The clan is called a bok. It is patrilineal, totemic and governed by the usual clan rules. Incest within the clan is considered a very serious offence. All the clans in the Juang society may be grouped in to two divisions known as Bandhu clans and Kutum clans. The members of a Kutum clan are considered parallel cousins and as such marriage or sexual relations with members of a Kutum clan is taboo.

Life Cycle Rituals

Birth, puberty, marriage and death are the most important stages in the life of a Juang. Some kind of rituals is associated with each stage of their life cycle.

When a woman becomes pregnant, she has to observe various taboos. At the time of delivery, a midwife or elderly woman from the village is called to assist the expectant woman for easy delivery. The mother remains secluded and is not allowed to do any household work during the period of birth pollution, which continues up to 7 days in Dhenkanal and 1 day in Keonjhar. On the fifth or sixth day of the delivery the name giving ceremony of the child is held. The child generally takes the names of one of the deceased ancestors.

Marriage is the most important event in the life of a Juang individual. There are several methods of acquiring mates in the Juang society. These are: Marriage by negotiation; Marriage by capture; Love Marriage; and Widow marriage. Marriage by capture is the most common in the Juang. Love marriages sometimes takes place, which is regularized afterwards. Divorce is socially permitted. Divorcees and widowers can remarry if they like. A widow is expected to marry her late husband's younger brother.

In order to satisfy the soul of the dead and give it rest in the other world, the Juang observe a death ceremony in different phases. The customary law of disposing of the dead is the cremation of the corpse. Death pollution is observed for two days in Keonjhar and 10 days in Dhenkanal. The deceased's close relatives are the mourners who observe various restrictions in respect of food and work. On the day of purification everyone takes a bath.

Economy and Livelihood

The routine work of the Juang centres around their economic activities. There is a division of labour based on age and sex. The women do domestic work and also help their husbands in economic pursuits. Ploughing, sowing, broadcasting, thatching and tree felling are exclusively the work of men.

The Juang pursue cultivation on four type of lands such as Taila (land under shifting cultivation); Guda (upland); Badi (kitchen garden); and Bila (wetland).

Generally, the hill slopes are cultivated for three to four years after which they are left fallow to recuperate. The main crops which are grown in the Taila are mandia, gangei, kangu, jali, dhan, biri, tila and vegetables. Maize and tobacco are raised on the upland. In Bila only paddy is grown.

The forests in Keonjhar are still rich with wild game and the Juang pursue hunting occasionally when they get time. They also collect fruits, roots and tubers from the forest. Fishing is a pastime rather than an economic pursuit for the Juang.

The Juang of Pallahara make various types of baskets from bamboo, a skill they have picked up from the local scheduled castes. Livestock rearing has not been taken up as an independent means of earning livelihood. The Juang raise cows, goats, fowls and pigs in

small numbers either for agricultural or for religious purposes. The hill Juang of Keonjhar do not like to work as labourers.

Social Control

In every Juang village there is a village council consisting of some office holders and the village elders. It is responsible for the maintenance of peace and traditional norms in the village. The Pradhan is the formal headman of the council. All significant matters are brought to his notice. He decides cases like quarrels among the villagers, breaches of minor taboos, divorce cases and the separation of property with the help of village elders.

The Nagam or Dehuri, the sacerdotal chief of the village, takes an active part in some important decisions regarding the distribution of Taila land to the villagers and fixing the date for observing different rituals. The Dangua acts as the messenger of the Nagam and the Pradhan.

Fairs and Festivals

The Juang believe that their life is controlled and guided by various deities and deified spirits who live around them in the hills, forests and rivers. But at the top are Dharam Deota (the sun god) and Basumata (Mother Earth) who are the creators and preservers of Juang society.

The Juang observe various rituals throughout the year to propitiate their deities and ancestors. Their important festivals include Puspunei, Amba-Nua, Tirtia, Asadi, Pirh-Puja, Dhan-nua etc. On the occasion of Amba-Nua and Dhan- Nua the Juang clean their houses, throw away their old earthenware cooking pots and use new ones. They prepare a special type of food and offer it to ancestors with Mahuli liquor.

The village youth worship their deities called Bhima or Kanchery in the dormitory on this occasion. There are some traces of borrowing from the Hindu pantheon and religious ceremonies. Hindu festivals like RathaJatra, Raja Sankranti, Ganesh puja and Laxmi Pujan have been included in their annual festive cycle.

Changing Scenario

The Juang of Odisha are no longer an isolated group. They live among Hindu castes in Dhenkanal district. However, the changes are found to some extent in their way of life. Among the Juang of Keonjhar district various development programs have been implemented for their all-around development through the Integrated Tribal Development Agency and micro projects. The agencies provide improved varieties of seeds, fertilizers, insecticides, agricultural implements, irrigation facilities and developed land to the shifting cultivators. The agencies have taken care to open an intensive health care center. They have also established some schools and adult education centers to provide a modern education.

Location and Identity

The Kharia are widely spread over Odisha, Bihar, West Bengal and Madhya Pradesh. Concerning the origin of the name 'Kharia', Russel and Hiralal suggest that it is a jargon term derived from 'Kharkharia', palanquin or litter. The original name Khar-Kharia has been contracted to Kharia who carry palanquin. The Kharia are thus named in accordance with the tradition that their first ancestors carried a banghy (carrying pole). The Kharia legend of origin resembles that of the Mundas, and tends to show that they are an elder branch of that tribe.

The Kharia tribe is split into 3 social groups, namely the Pahari Kharia, Dhelki Kharia, and the Dudh Kharia. These 3 social groups are distinguished from each other and have relatively speaking, three grades of primitive culture. The hill Kharia, the primitive and backward section of the tribe, represent the hunting and food gathering stage of economic life along with the practice of rudimentary cultivation and primitive culture. The Dhelki section represent a more advanced culture with plough cultivation and food production. And the Dudh Kharia section represent the most advanced culture, bringing them into line with other Munda speaking tribes in India.

Settlement and Housing Pattern

The hill Kharia live in the hills and forests of Mayurbhanj. Their villages vary in size from five families to twenty families or even more. Their huts are located in scattered manner on hill tops, slopes or even foothills. A typical Hill Kharia house is a small multipurpose rectangular hut with walls made of sal wood and plastered with mud. The roof of the hut is made out of a double sloped wooden frame and thatched with grass or straw. The well to do Dudh and Dhelki Kharia have more than one hut with a kitchen, a separate cowshed and pigsty.

Dress and Ornament

Kharia children go naked up to 6 years. Children from 7 to 10 wear the boroka (loin cloth) around their thighs and waists. Adult Kharia wear small dhotis and women wear white cotton saris, which fall down to ankles. Nowadays the Kharia, especially the more advanced sections of the tribe, wear modern dress. Kharia women adorn themselves with various types of ornaments, which include brass necklaces, armlets, earrings, finger rings and iron hair pins. Some young boys also wear bead necklaces. Women wear ribbons to decorate their hair.

Clan and Kinship

The family is mostly nuclear, consisting of parents and their unmarried children. The average size of the family is five to six numbers. The Kharia family is patrilineal and patriarchal. Among the Dudh and Dhelki Kharia joint families are found rarely. The Hill Kharia of Mayurbhanj have no clan organization. However, there is a totemistic clan organization among the Dudh and DhelkiKharias. Their clans, which are exogamous, regulate kinship ties and marriage.

Life Cycle Rituals

In the case of Hill Kharia, after delivery of the child a period of birth pollution is observed for nine days. The mother and the ne born baby take a ceremonial bath on the ninth day. A few families observe a second purificatory ceremony on the 21st day after the birth.

Different sections among the Kharia never intermarry. Adult boys marry at the age of twenty and above, and girls marry at the age of fifteen to eighteen years. They practice monogamy and cross cousin marriage. Marriage by arrangement and negotiation is the ideal pattern. After marriage the couple live neolocally. The other prevailing forms of marriage are marriage by capture, elopement and service. Divorce is allowed and widows are permitted to remarry.

After death of an individual, they bury the corpse and observe death pollution for ten days.

Fairs and Festivals

Thakurani or the Earth Goddess is the supreme deity of hill Kharia. They also worship Dharani Devata and a hero named Banda. They venerate their ploughs and axes on the day of Dashara. They worship the Sun. Their religious beliefs and practices are based on the propitiation of various gods and spirits by observing different rites, ceremonies and sacrifices. They believe that the spirits who reside in the hills and forests control nature.

Economy and Livelihood

The three sections of the tribe lie at 3 different stages of economic scale: the hill Kharia subsist on food gathering and hunting, the Dhelki Kharia on agricultural labour and the Dudh Kharia on settled agriculture. Formerly the traditional occupation of the Kharia was crying litters. But now a days the hill Kharia mostly depend on food gathering and hunting. Some of them also practice rudimentary cultivations. Their major source of income is derived from the collection of forest products such as resin, wax, honey, tusser cocoon, gum, lac etc, which they barter for paddy and other cereals. For dhelkis, agriculture has been the main source of livelihood. Some also work as agricultural labourers. The Dudh Kharia are settled agriculturists. In the recent past a large number of Kharia have gone to the tea gardens of Assam to work as daily labourers.

Fishing is a subsidiary and occasional economic pursuit for the Kharia. The habitat of the Hill Kharia provides little scope for fishing, but the other two sections of the tribe go fishing whenever the opportunity arises.

Many Dudh and Dhelki Kharia spin thread. Generally, Kharia women make mats out of date palm and splits of bamboo for their own use. The Kharia make ropes out of sabaifibers and the leaves of the aloe plant. A few Kharia know the technique of oil pressing. The Hill Kharia are expert hunters. Using bow and arrows, sticks and spears, they hunt wild game like deer, pea – fowls, jungle fowls, snipes and squirrels.

Social Control

The traditional political organization of the Kharia is constituted at two different levels, one at village level and the other at the inter – village level, in order to keep solidarity and law and order intact. Every Kharia village has a panchayat of its own headed by Pradhan among the Hill Kharia, Kalo among the Dhelkis, and Kalo or Bainga or even Pradhan among the DudhKharias.

Cases of breach of any taboo and disputes about partition, divorce, adultery and likely are decided in the meetings of village council. The members of the council are present at rites and ceremonies relating to birth, marriage and death. Above the village council is the intervillage council. The Kharia call the organization the Parha Panchayat and Kutumba Sabha or Bhira.

Changing Scenario

The three sections of tribe have been influenced by other cultures and thus have undergone certain changes. The Dhelki and DudhKharias have changed more than the hill Kharia. In the recent past, some hill Kharia have left their hill dwellings and moved to other parts of the area in search of livelihood. Now they are living with other peasant communities.

This contact with caste Hindus has brought some noticeable changes in their techno economic and religious spheres. As a result, they have taken up settled agriculture, animal husbandry and wage – earning for their livelihood. On the other hand, the Dudh and Dhelki Kharia, who have been in contact with Hindu castes for a quite some time, have been more influenced by Hindu ideas.

KISAN

Location and Identity

The Kisan people are a peasant community. They are expert agriculturists. The Kisan call themselves as Kunhar which means hill men. They are known by various names according to the place of their residence like Kuda, Kor, Mirdha, Kola, Marva etc. In India they are distributed in the states of Odisha, Bihar, Uttar Pradesh and West Bengal. In Odisha, Kisan are found in most of the districts, but their concentration is more in districts like Sundergarh, Sambalpur and Keonjhar.

The Kisans of Odisha speak Kisan which is considered to be a Dravidian language. They are also conversant in Odia, Laria and Hindi. From cultural and linguistic points of view, the Kisan seem to be a branch of Oraon. The tribe is very adaptive.

Settlement and Housing Pattern

The Kisan settlement is homogeneous. Mostly the settlement consists of a single lineage. In multiethnic villages, they live in separate hamlets. The arrangement of houses in a Kisan settlement and the house pattern there are not the same throughout. In some settlements, the houses are clustered together. In certain new cluster of houses, the houses are arranged along the village roads and streets.

Kisan houses are rectangular in size. Each individual house has its compound with one door in each room open to courtyard. Most of the houses have low mud walls and a naria tiled roof. Besides the cowshed and the kitchen, each house consists of more than one living room.

Clan and Kinship

The Kisan social structure is reported to be comprised of as many as 16 sects or lineages. Each of these social units is exogamous in nature. Marriage within the social fabric of clan is restricted. According to ancestry, each lineage is again divided into a number of divisions called Khudi.

Although many live-in nuclear families, there are some that live in extended families. Parental property is equally divided among the sons and the eldest son succeeds to the late father's authority. The Kisan women have many significant roles to perform in the social, economic and religious spheres.

Life Cycle Rituals

Experienced women of the village assist the expectant mother at the time of child birth. The delivery of a child always takes place in one corner of the living room. Soon after birth, the naval cord is severed with a knife and along with the placenta it is buried in a pit. Purification rite is performed on the seventh day from the birth where the mother washes her clothes and take complete bath and take Tulsi water. On the 21st day, the name giving ceremony of the child takes place.

The Kisan marriage custom strictly follows the principle of endogamy. Monogamy is the practice, but the Kisan society also considers the bigamy. Marriage within the same clan or to a member of any other caste or tribe is forbidden. The Kisan prefer adult and arranged marriages. In some cases, marriage by mutual consent, phony capture, elopement and service are also considered acceptable. Marriage with one's mother's brother's daughter is common. The practice of bride price is prevalent among them. Divorce due to adultery, maladjustment, impotency and cruelty is socially permissible, as the remarriage of widows, widowers and divorcees is also socially approved. The Kisan have their own oral tradition and both men and women sing wedding songs.

They bury and also burn the deceased at times. Death rites are observed in two stages as primary and secondary rites. During the primary death rites, they dispose of the corpse, collect its bones and observe purificatory rites. On the eight or twelfth day the final purificatory rites are observed by cleaning the houses and washing the clothes. During the secondary rites the bone immersion ceremony is observed.

Food and Drink

Rice is their staple food. It is taken twice or thrice daily with a side dish of green vegetables. They also eat lentils, roots, tubers, mandia, maize, arrowroot, greens, fruits, nuts, berries, flowers, mushrooms, which are collected from the nearby forest. They use mustard oil for cooking. Occasionally they also eat mutton, poultry, eggs and fishes. Most of them prefer water rice, which is taken with salt, chilly and edible greens and vegetables.

The Kisan men drink alcohol, mostly home or locally brewed country liquor like rice beer and mahua, a spirit distilled from the flowers of the local mahua tree. They smoke and chew tobacco. Also, the use of tobacco paste is their common habit.

Economy and Livelihood

Traditionally, they are a farming and food gathering tribe. As their name suggests the Kisan pursue agriculture as their primary occupation. They mainly grow rice and gulji, minor millet, as their main food crop. Most of them still follow the traditional method of farming. In addition to agriculture, they depend on forest collection as much as their places of habitat permits. They collect firewood, green leaves, fruits, mohua flowers and seeds, mostly for their own consumption, and lac, honey, kendu leaves for sale.

In the leisure time, they go for hunting animals from the near forest and fishing as well. Women have knowledge of making mats and broomsticks from wild date palm leaves, while men know brick –making and carpentry. The landless Kisan people eke out their livelihood primarily as agricultural laborers. Some of them were brought to work in the tea plantations of west Bengal by British during colonial times. Since then they have been continuing till today. Now a days, few of them are employed in private and government sectors or own small business, while many of them are daily wage laborers in industry, construction and agricultural sectors.

Social Control

The elders are leaders, the torch bearer of the Kisan society. They are respected by all and are the most important persons. The Kisan socio-political structure is always democratic in spirit and the Kisan leaders are mostly informal in nature. The two most important formal leaders within the tribe are the Bariha and Panigiri.

For all socio-political purposes local group is the most important social unit in the Kisan society. The local group may be a village or a word within the village. In the local group an informal council of elders is the real authority. The prominent person within the group is called Sian or headman but he neither exercises any special power nor holds any hereditary or lifelong office. He is just a common man though he enjoys some amount of prestige in the eye of others. The Kisan villagers are multiclan in nature. In a bigger village it is not convenient to maintain solidarity by the local group. In such occasions the local group becomes divided into a number of sub groups, locally called bad.

The Kisans retain some amount of solidarity in the lineage level or sub clan level through the functions of Bansa puja and Bansa Khoja. They worship the Bansa ancestors and other deities and pray for the expansion of the Bansa and for protection of the Bansa members from diseases. The Kisan society of Odisha has a traditional community council called jatisamaj. The mukhia is its head. All the heads of the household are the members of the village panchayat. The decisions of the village and regional panchayats are welcomed by all the Kisans.

Fairs and Festivals

Like the religion of other tribes, the Kisan religion is mostly based on nature and ancestor worship. Among many deities of their ancient religion, Ista Devata along with SamalaiMaha Prabhu are revered as household deities, while Gosain, Ganasir, Budha Bandha, Baghia, Bhima Devta are worshipped at some of their tutelary village deities.

Among the Kisan, different rituals and festivals are observed in honor of Gods and Godesses round the year. Their festivities are connected with agricultural operations like sowing, harvesting and consumption of first fruits etc. they celebrate various festivals like Bihanbuna, Gamha, Nuakhia and dussehera. On these festive occasions the sacrifice of goats and fowls is very common. Rituals and festivals are always celebrated with singing and dancing on the tune of music.

Changing Scenario

Through the govt interventions, especially by the ST & SC Development Department, Government of Odisha by opening schools and special hostel for STs, the Kisan have availed formal education for their children. There are few Kisan students who have reached postgraduate level. Both modern and indigenous medicine is used by the community. Many of the Kisan people have adopted family planning measures.

The Kisan people have benefitted from the government's child welfare and immunization programs and the public distribution system. At present, the national banking facilities are made available in their localities. The Kisan women have been attached to Mahilamandal, Self Help Group etc. and taken up economic and social welfare activities.

KOLHA

Location and Identity

The Kolha, along with the kindred races, constitute one of the largest tribes in the states of Madhya Pradesh, Odisha and Maharashtra. The present day Kolha and Munda belong to the same ancestral stock except for the fact that the Mundas are more Hinduized than the Kolha. This tribe inhabits the mining and industrial belt of the Bihar- Odisha border and has been exposed to the forces of industrialization right from the beginning of the century. In Odisha, the Kolha are scattered throughout the state. They live alongside other Kolarian tribes like the Santal, Munda, Ho, etc.

Settlement and Housing Pattern

Since the Kol or Kolha are in contact with Hindu culture, most of their villages are usually found together with other castes, not in forest, but in an open space. Kolha villages follow a linear pattern of settlement with two rows of houses facing each other along a common road

or footpath. They generally build their houses in separate enclosures, each being a separate unit.

Every house has its own spacious fence enclosing the house proper, cowshed, harvest ground and storage space for straw and firewood. Each Kolha village has a Jahera-than or the place of the village deity, which is usually a large sal grove, located preferably in the eastern part of the village. There are, generally speaking, well defined village boundaries.

The typical Kolha house has either one multi-purpose room or two or three rooms at the most. If it is one-roomed house, it is partitioned into at least three small spaces by a temporary thin wall. One of the spaces is used as a kitchen, while the other two are used to store grains and for multipurpose uses. If the house has more than one room, every room is separate in this function. The doors are either wooden or bamboo, and windows are conspicuously absent in most houses. The entrance of the house is ideally towards the east. The roof is thatched and mud floors are common. The walls are coated with yellow or red mud which is available in the locality.

Dress and Ornament

The dress of the Kolha is very simple and not distinct from that of their neighbours like the Santal, Bathudi, Munda etc. The men wear a handwoven coarse dhoti, rarely coming below the knees. The lower portion of the dhoti is tucked in the back. Modern types of dress like synthetic trousers, shirts, etc are often worn by village youth.

Women use a piece of coarse sari about 6-8 feet long, usually with broad colored criss-cross design. Blouses and undergarments are not uncommonly worn among young girls and also those working outside the village. Women use a number of ornaments, including glass or silver bangles, bead or glass or silver necklaces, silver anklets, hair pins, wristlets etc. Unlike spinsters, married women wear iron bangles and toe rings to give them a special identity.

Clan and Kinship

Kolha society is divided into various clans or killi. A killi is strictly exogamous. Marriage within the same group is strictly prohibited. This clan exogamy is due to the fact that the members of a killi are believed to be descended from a common mythical ancestor and thus to be related to each other by blood ties. This belief in a blood relationship not only imposes a total ban on marital relations, but also induces a high degree of unity and intimacy between the members of a killi. Every killi is associated with a totem.

The family is regarded as the smallest socio –economic and politico-religious unit. Most families are nuclear in composition. Monogamy is a common practice, with the rare occurrence of polygamous families. Although polygyny is never encouraged in a Kolha community, it takes place in exceptional situations like the barrenness or disability of the first wife. The Kolha are basically a patrilineal and patrilocal society.

Life Cycle Rituals

The Kolha observe birth, name-giving, marriage and death rituals elaborately and spend lavishly in entertaining their fellow villagers. A woman in pregnancy is not considered

unclean and there are no particular taboos upon her. The actual delivery takes place at home. She is attended by her mother-in-law.

Immediately after the birth ash is sprinkled lightly over the baby from head to feet. This, it is claimed, prevents skin trouble, a possible chill and wards off evil spirits. The baby is bathed in lukewarm water. Subsequently it is gently massaged with til oil. On the ninth day, the marta ceremony takes place when the stump of the umbilical cord has fallen off. On the twelfth day after the bath the mother finally resumes her daily works. The family remains ceremonially unclean for a month.

The Kolha usually marry outside their clan. Monogamous marriage is most preferred. Preferential cross-cousin marriages are widely observed, and secondary marriages like levirate, sororate and widow remarriages are practiced. Generally adult marriage takes place. Marriage by negotiation is common, though there are other forms of marriage, such as marriage by capture, marriage by elopement, marriage by intrusion, marriage by adoption and marriage by exchange. Except for marriage by negotiation, all forms of marriages are arranged at the groom's residence.

The Kolha practice both cremation and burial. At present burials have become more common. After three days of cremation, a bone of the deceased is collected from the ashes and kept in a new cloth for later disposal. The Daswi or the final purificatory ceremony takes place after ten days. Sapsi or the funeral feast occurs on the tenth day. In the case of females, it is observed on the ninth day.

Food and Drink

Rice is the staple food of the Kolha. Dehusked rice, which is prepared almost every day in all houses, is used. Like other Hindu neighbours, the Kolha have two meals a day, one about noon and the other late at night. Early in the morning, some of stale rice is usually eaten before going to the work. Millet is frequently eaten, and fried leaves of various kinds, onion, garlic, chillies and a pinch of salt constitute the typical side dish. Sometimes they prepare rice cakes too. They relish fish, meats of sheep, goat, hare, deer, fowl, pigeon, duck, geese etc. are boiled and eaten with great satisfaction. Beef and pork are sometimes eaten. On ceremonial occasions rice, pulses, vegetables curry and meat are prepared. The Kolha drink milk when available and the age-old taboo on its use is gradually losing its ground.

The Kolha prepare a drink of homemade rice called beer or illi, which is consumed by everybody irrespective of sex and age. The beer prepared from the Mahua leaf is also a favourite drink of the Kolha. They are also addicted to toddy-palm. No festival or ritual among the Kolha is complete without rice beer and meat of some kind or the other.

Economy and Livelihood

Earlier the Kolha substituted on hunting and collecting, but their gradual contact with Hindus led them to practice cultivation and adopt plain-land wet agriculture. Their long contact with the Mahato community enabled them to learn the techniques of agriculture in a more sophisticated way. Most Kolha depend on agriculture either as cultivators or as agricultural labourers. But these activities do no prove adequate to sustain them throughout

the year and they are therefore attracted by remunerative daily wages and prefer to be engaged as day labourers in industrial areas. This sort of employment opportunity and possibility to earn cash exposes them to the evils of an urban industrial culture. Thus, agriculture has become an occupation of the old and disabled.

The total cultivable land is divided into three categories, namely paddy land, orchard and homestead land. Although individuality has taken over from the spirit of traditional collectivity in the Kolha social life, communal labor still plays important role in agricultural production. Now-a-days hunting has become more of a ritual than a means of subsistence for the Kolha. Communal hunting, a symbol of social integrity and co-operation, is still being practiced.

Fairs and Festivals

The Kolha observe four festivals communally besides domestic rituals. These festivals are a combination of socio-religious and recreational activities. These are: Magha Pudi (in the month of January-February); Ba-Parab / Phulbhanguni (four days in the month of February-march); Hera Parab (related to agricultural cycle); JamnaParab / NuakhaiParab (in October-November). Besides these festivals, the kolha observe Maker Parab, AshadhiParab, GamahParab etc.

Social Control

The ultimate authority of the local group rests with the village Pradhan. The traditional panchayat is composed of the Pradhan and all the individual adult males of the community. The Pradhan is the head of the village judiciary and is supported by the village elders. Practically, all major and minor issues affecting the life of the community were decided by the Panchayat. The dakua (messenger) has the responsibility of informing all the villagers according to the date and time of the meeting.

Changing Scenario

With the disintegration of the Kolha villages and subsequent migration to different urban centers to eke out a livelihood, the Kolha lived in villages with other ethnic groups and lost their identity. Subsequently the Panchayati raj system was introduced and new leaders emerged, like sarpanches and ward members. With that, the Kolha lost their own political entity. At present, they participate in the panchayat election and hold the posts of sarpanches and ward members.

A lack of agricultural land or landlessness has forced most Kolha to become engaged as daily laborers. This has jeopardized the traditional agricultural economy of the Kolha. The traditional mechanism of exchange has been replaced with a money economy. The conventional political system which existed up to independence exists no longer. Under the impact of modernization, the Kolha are gradually losing faith in the wrath of spirits and deities. Annual festivals, mostly agriculturally based, are no longer observed with pomp. Despite the fact that their lifestyle has changed due to the impact of modernity, they still cling to tradition and maintain their cultural identity. They still lean upon their sovereign Bongas.

KOYA

Location and Identity

The Koyas are an ancient tribe credited with a unique way of community life and a common cultural heritage. In the long past, the Koyas were identified as a warrior tribe. In Malkangiri, Koyas constitute the principal tribe and are widely found in Kalimela, Mottu, Podia, Mathili, Korkonda and Malkangiri blocks. They call themselves Koya or Koitar meaning People.

The Koyas are a branch of the Gondi speaking people. Their mother tongue comes under the Dravidian group of languages. There has been some incorporation of Telugu, Hindi and Odia words into the language of the Southern and Northern Koyas respectively. The southerners have been much influenced in dress, ornaments and hairstyle by Telugus, while the northerners have retained their primitiveness to a great extent.

Settlement and Housing Pattern

The Koya villages are situated on the patches of clearings in the midst of forests surrounded by different trees like Mahul and Salpa. In each village there is one structure called Bijjgudi or House of God. This is situated either in the village, or near the village boundary or even in front of the head man's house.

Mostly, the access to the Koya villages is by narrow footpaths of kacha type. In every village, one finds two or more clusters of houses. The Koya live in low thatched houses. Each house consists of one or two small huts, which are used as sleeping rooms. The walls of a house are made of tree branches and bamboo, which are thickly plastered with mud. The roofs are low thatched with a type of wild grass, locally known sindi. The houses are rectangular in size and partitioned into rooms by walls of bamboo plastered with mud. The house is windowless. There are no separate storerooms.

The boundary of each house site is demarcated by fencing made of neatly woven bamboo splits. There are small sheds for pigs, goats and fowls. Each Koya house is attached with a kitchen garden. The roofs of almost all houses are covered with vegetable creepers.

Dress and Ornament

Koyas of older generation use very scanty clothes. Men use only loin cloth. Older women wear narrow shorts covering the portions from waist to knee, and use another piece to cover the upper part of the body. Now-a-days women of younger generation wear saree, blouse and petticoat and young men wear dhoti, half pant, lungi etc. Women wear several ornaments on their wrists, ankles, ears, noses and neck.

Clan and Kinship

The Koya tribe is dichotomized between two types of kin in groups called Kutumam and Wiwalwand. A person cannot marry a girl of the same phratry to which he belongs because all persons in that group are believed to have blood relationship among themselves.

The family is the smallest unit of social grouping in Koya society. The family is called Lotam in the Koya language. It includes the parents and their children. Sometimes, the family also includes the groom who stays in his father-in-law's house with his wife under the custom of marriage by service. As soon as the sons grow up and get married, they build their own houses near their parents' house and live separately with their wives, though they may share a common kitchen.

Life Cycle Rituals

When a Koya woman conceives, it is believed that God has put the baby inside her womb. When her labour starts, she is taken to a hut erected behind the main house for delivery. The Wadde conducts necessary rituals to save the child and mother from the evil spirits and facilitate the smooth delivery of the baby. Name giving ceremony of the new born is performed after 2 to 3 months of birth and in some cases even earlier, when the family has the means to afford the expenses. After the child is named, a pig is sacrificed and a feast is organized for the village women.

Koya marriage or pendul is one of the most important social functions. In selecting a bride, preference is given to the maternal uncle's daughter or father's sister's daughter. In arranged marriages the groom's parents take the initiative in marriage negotiations. In many cases, the age of wives is more than that of husbands. On the day of the wedding, the bride is brought to the groom's house, accompanied by her friends and relatives. They are given rice beer to drink and some food. During the marriage ceremony several types of songs are sung by the women folk of both the parties. The Koyas also perform the ceremonial dance, wearing bison horns on their heads during the marriage ceremony.

After the death of a person a new cloth is put on the dead body. The dead body is bathed with oil and turmeric and then some salt and spade are kept over its abdomen. The body is placed over a bamboo mesh and is raised to shoulders by the family members and relatives. Then the dead body is carried to the cremation ground keeping the head towards the east. On the day of the disposal of the dead body, few logs of wood are burnt at the entrance of the village. During this time the women sing songs remembering the dead. They erect menhirs in the memory of the dead.

Food and Drink

The Koya take two principal meals a day, and a third minor meal. The morning meal mainly consists of jawa or rice gruel. Sometimes they also take millet gruel. During the mid-day, they take either rice or millet starch. The evening meal consists of boiled rice and a curry of mixed vegetables of pulses and spinach.

During the lean period, roots, tubers, green leaves and wild fruits constitute important items of their food. All types of wild animals and birds except tigers and bears are eaten by the

Koyas. During the monsoon they collect snails, oysters, crabs, fish and mushrooms for their supplementary food. They also eat eggs of red and white ants. They consume mutton, chicken, beef and pork.

Mahula and Salpa are their ideal drinks. They take very little quantity of milk. Mahul flowers are used not only as food but also an intoxicating drink. The Koyas prepare a kind of alcoholic beverage by boiling Mahul flowers in their indigenous ways. This is called surate or Uram and is deep red in color.

Economy and Livelihood

In the past, the Koyas were mainly shifting cultivators. But now-a-days they have taken to settled agriculture. They cultivate mainly paddy, maize, millet and tobacco leaf. As the agricultural yields do not suffice for a family to survive for the whole year, the Koyas resort to other types of food quest i.e. the collection of roots and fruits from the jungle and the growing of minor crops like suan, maize and pulses.

Collection of roots, fruits, leaves, tubers, herbs etc from the nearby forest constitutes one of the important livelihood activities of the Koyas, which supplements their food and income. They collect tumid in large quantities from the forest when they are ripen and are stored after being dried in sun to be used during the period of food scarcity. Mahul trees grow in abundance in the Koya area, and during the months of March and April large quantities of Mahul are collected, dried and stored for future use. The roots collected are also used as medicines. The women folk collect a large variety of wild greens, which they call Kusir, from the fields, jungles and the edges of water. These greens are cooked and eaten with rice.

The Koyas own large herds of cows and bullocks. According to the Koya traditional system, chom or wealth means cattle, because a Koya without cattle has no status in society. The cattle and cows are used to plough fields. Oxen and cows are slaughtered as offerings at funerals and other festivals. The forest nearby is used for grazing of the herd. They also rear pigs, goats, cows, duck and hens. They prefer hatching of chicks and do not prefer consuming eggs.

They are skilled hunters. Since the wild games have become scarce and hunting wild animals is totally banned now, they go out for hunting rarely during festive occasions.

Koya women contribute a lot in the household activities, agriculture, livestock management, procurement, management and value addition of non-timber forest products, agricultural surpluses and collection of firewood.

The community fund maintained in the form of both cash and kinds are circulated to the needy persons on low interest reflects their community-oriented living and management skills. The functioning of their traditional seed bank and grain bank not only meets the emergency requirements of the villagers but also functions as the gene pool and ensures food security of the village.

Fairs and Festivals

The Koya celebrate mainly four annual religious festivals such as Bijja Pandu, Kodta Pandu, Bimud Pandu and Idu or Ikk Pandu. Bijja Pandu is the most important agricultural festival held to worship the Earth Goddess to get a trouble-free agricultural season and a good harvest. In all these new eating festivals the village deity and ancestral spirits in the households are worshipped by the village preist and household heads respectively. Animal sacrifices are made and the new crop, fruit and vegetable is offered to the deities after which the Koyas eat them.

The Koyas also worship few other Gods and deities installed in other parts of the Koya area. In Koya society, magic and religion are complementary to each other. The Koyas worship their Gods and appease them and get their blessings. When this worship fails to bring them any result, they resort to magical practices with the help of Wadde, the magico-religious specialist. Wadde is called upon to perform magical rites to cure diseases, effects smooth delivery of a child and ward off the calamities and epidemics.

Changing Scenario

The Koya's habitat, economy and society and cultural life in Malkangiri have undergone a process of change from nineteen seventies onwards due to rehabilitation of refugees from Bangladesh in Dandakaranya Development Project and Odia refugees from Srilanka on transit basis and displacement of Koya families. Besides, the influx of people of different cultures from outside has affected the life and culture of the Koyas.

Increase of population in the area has conversely depleted the traditional natural resources of Koyas. The Koya pastoral economy suffered a major setback for lack of adequate pasture. Thus, the Koyas are hard pressed economically in their own habitat.

The Malkangiri ITDA has been launching multi-sectoral development programs from 1975-76 onwards, mainly for income generation and infrastructure development in the area. The extension services made available through different line departments in the sectors of agriculture, animal husbandry, health, education =, soil conservation and horticulture have limited impact on their socio-economic life.

There is still a conspicuous gap between the expectations and achievements among the Koya. This has moderated the impact of various development programs on their life and livelihood. However, in the planned development interventions of the Government the Koya people need to participate fully for successful implementation of projects for maximization of benefits for their sustainable socio-economic development.

The Mankirdiaconstitute a semi nomadic section of the Birhor tribe. They are primarily a hunting and food gathering community. For their traditional skill of rope making, trapping and eating monkey, their neighbours call them 'Mankidi' or 'Mankidia'. In the district of Kalahandi and Sundargarh they are named Mankidi whereas in Mayurbhanj and Sambalpur districts they go by the name Mankirdia. They catch and kill monkeys from the forests and eat monkey's meat. When these monkeys create havoc in the rural areas and destroy crops, fruits and vegetables, the local people employ the Mankirdias to catch them.

The scenic Chotanagpur plateau is said to be their place of origin. From there they might have migrated to different parts of Odisha and ultimately chosen temporary habitations around the hill tracts. Besides Odisha, they are found in Jharkhand, West Bengal, Madhya Pradesh and Maharashtra. In Odisha, small wandering bands of Mankirdia are largely found in Mayurbhanj, Keonjhar, Balasore, Jajpur, Deogarh, Sundergarh and Sambalpur districts. They are mostly distributed in and around the Similipal hills.

They speak a Munda language and some of them are also conversant in Odia. The typical physicalcharacteristic features of Mankirdia are short stature, dark complexion with long head, broad flat nose, thick lips, wavy hair, loose arms and bow-like legs. They are simple and shy in nature.

The Mankirdias are listed as one of the Particularly Vulnerable Tribal Groups (PVTG) in Odisha.

Settlement and Housing Pattern

The temporary settlement of Mankirdia is a small one, called tanda - the leaf hutments. After observing the ritual testing of suitability of the site by the Dehuri, the priest, a new tanda is set up at a place close to forest, water source and weekly *hat*. Most often the tanda is found in the fringe of a village.

Large number of families in a tanda affects adversely to their forest and market-based economy. So, it houses 10 to 15 families comprising about 50 people. Some of the families are related to each other consanguinally and others, affinally. In a tanda, besides the kumbhas (leaf huts) belonging to the individual families, there are two other huts, called Dhugala, used by the unmarried boys and Kudi Ada, used by the unmarried girls for sleeping in night. In one more kumbhathetanda deity is installed.

Their movement from place to place is more frequent in summer than in other seasons. But in rainy season they set up their tandaand stay all the four months in a locality preferably near a peasant village. In winter season they change the camp two or three times. The frequent change of settlement is primarily made in search of forest produce. But the general pattern of movement is that a Birhor tandais confined to one or two places in the rainy season and it more frequently shifts in summer months.

Kumbha, the leaf huts in which the Mankiridia live are dome shaped, having an opening for entrance. It is made of twigs with leaves of sal (*shorearobusta*) tree, woven in a framework of wooden saplings tied together with sialifiber. The height of *kumbha* as foundin Karanjia area of Mayurbhanj district in Odisha, is about 5 feet. It covers a circular space having a

circumference of 46 - 50 feet. During the rainy season they build an earthen ridge around the outer circumference of the kumbhato prevent seepage of water into it. It is windowless but has a door (badgir) shutter of 3'x3' size made of twigs and salleaves. The structure is leak proof. The Mankiridia enter into the kumbha by creeping. The kumbha accommodates humans, domestic animals and birds, and the scanty household belongings.

Dress and Ornament

Their traditional style of dress and ornaments are plain and simple. They follow the same pattern as the neighboring Munda speaking tribes like the Santal, Munda, Kol, Ho etc. Men use coarse handloom loin cloth and women wear similar *sarees*. These white coloured clothes have coloured check pattern and are woven by local weavers. Women put on few ornaments made of glass, beads and cheap metal. Often women fix a wooden comb in their hair knot.

Clan and Kinship

The Mankirdiafamilyis invariably of nuclear type. Itcomprises of father, mother and unmarried children. In some cases, either the widow mother or the widower father lives with the married son in his family. The next higher social unit is clan that regulates marriage and prohibits incestuous sexual union. A number of clans are found among the Mankirdias, some of which are Sinkhili, Hembrum, Nagpuria, Malihi, Sikria, etc.

In a Mankirdia family men and women supplement and complement each other as equal partners. While men take up harder jobs like hunting, women accomplish relatively lighter tasks besides shouldering their routine responsibilities of housekeeping, child care, processing, cooking and serving food. Children help their parents and there by learn the art of living in their respective gender-based domains. Even the aged people do not sit idle. They do whatever they can to contribute to the family budget.

Life Cycle Rituals

The birthof a baby is a matter of great rejoices among the Mankirdias. The father is addressed as Aba and the mother, as Mai. After the birth of the child, which often takes place with the help of a traditional midwife, the whole tanda is considered polluted for a period of 7 days and the family in which the birth takes place observes pollution for 21 days.

Marriageis very colourful event in a Mankirdia's life. It takes place when a girl attains 14-18 years of age and a boy, 20 - 25 years. Prior to marriage the Mankirdia boys and girls have to spend at least 2 years in their dormitories to learn the lessons of life from their seniors after which the marriage is contemplated. Marriage within the tanda is in vogue as the tanda is multi-clan in structure. Cross-cousin marriage is absent but marriages of sororate and levirate types are in vogue. Arranged marriage is common. Besides, marriage by elopement and marriage by exchange are also practiced. For all regular kinds of marriage, the customary bride price is paid by the groom's side to the bride's parents. It usually comprises some amount of cash and three pieces of clothes. Their society permits divorce, remarriage of widows, widowers and divorcees.

When death takes place in any Mankirdia's house, other members of his family send the news to all the people of their lineage. Death occurring prior to old age is believed to be

caused due to the machination of evil spirits or sorcerers. Generally, the dead body is buried in a trench. Head of the dead body is kept in southwest direction. The pollution is observed for a period of ten days. On the 10th day Dehuri(priest) conducts purificatory rites and sprinkles water all over the tandaand over the lineage members. In the evening a feast is arranged for the elderly persons of the tanda, lineage members and other invitees.

Food and Drink

Although the Mankirdias tap different sources for their livelihood, they run deficit in their food supply many a times. During scarce period they eat mango kernels, which are preserved at home for consumption in difficult times. The staple food of the Mankirdia is rice. With the sale proceeds of ropes and forest produce they buy their weekly requirements of rice and other provisions from the market. They also buy corn and minor millets in harvest seasons and eat these in addition to cooked rice. They collect various types of green leaves, mushrooms and various types of fruits such as Kendu, palm and mango from the forest for their own consumption. During festive occasions they prepare and eat non-veg dishes, various kinds of cakes and other delicious items. They like the most to eat the flesh of monkey. When they kill monkey and have some surplus meat, they dry it under the sun and preserve it for future consumption.

They are also fond of alcoholic drinks like their traditional rice beer (handia) and mohuli liquor. Handia is their most favorite drink which women prepare at home. They also buy and consume drinks available in the market places. Mankirdia males smoke and chew tobacco

Economy and Livelihood

The primary occupation of the Mankirdias is making of ropes out of the bark of the siali creepers (Lama bayer), which are used by the local peasantry for different agricultural and domestic purposes. The craft of rope making is the lifeline of Mankirdia's subsistence economy. They produce good variety of fibers by chopping and stripping the bark of seasoned sialicreepers. In an open-air workshop, which sits in front of their kumbhasand most often beneath big trees, they tear the sialifibres into different sizes, make thin threads and braid and twist them to get the finished products of ropes, slings, nets, bags and small baskets (topa). Thetopaare used for oil pressing in an indigenous way. It helps contain oil seeds placed between two wooden planks which are pressed for extraction of oil by crude method by the tribals.

The Mankirdias are skilled monkey catchers. They use large nets made of sialifibers for catching monkeys. They eat the flesh of the monkeys and sell the skin to the local skin traders for cash. Often, they catch birds, snares, squirrels, hare and deer with the help of traps and nets. The birds and animals caught are generally sold in nearby villages or at market places for cash.

During their trip to forest for collection of barks, they dig out roots, fibers and also collect honey which supplements their diet. In many places tussarcocoons are available in forest and the Mankirdias are well acquainted with these places. The sale of cocoons adds to the income of the Mankirdias in the form of cash, which they use for buying their clothes. The

Mankirdia rear domestic animals like, goats, fowls, dogs etc to supplement their food and income

Many Mankirdias have learnt some of the techniques of agricultural operations such as weeding, transplanting and harvesting of paddy. The local people very often employ them as labourers during agricultural season. The wage earned from this pursuit by both the sexes adds to their family income.

Social Control

For all practical purposes the Mankirdiatandais an autonomous socio-political unit. The headman of the Tandais called Mukhya. His post is hereditary. The headman often acts as the priest. In this capacity he worships the deities and officiates in all the ritual performances. He does not receive any remuneration for his services except a major share of the sacrificial meat. But he commands respect and allegiance of his fellowmen.

Customary matters relating to the tanda and its members are discussed and decided in the meetings of the traditional Tanda council. The male household heads of the tanda are members of the council which is headed by the Mukhya. They punish the sinners and offenders by social boycott, which they call chindalor began.

Changing Scenario

The Mankirdia pursue a semi-nomadic way of life. For their livelihood they are very much dependent on forest and more particularly the Similipal hill ranges which are now a National Park and a Tiger Project. Usually, they set up their tandasvery close to forest. Their tandas are seen in and around the Similipal forest. Due to operation of forest and wild life conservation rules and regulations, the free movements of these nomads deep inside the forests and for that matter, their subsistence activities have been checked. As they are yet to graduate into a settled economy, they are left without any viable alternative.

A Micro Project named Hill-Kharia and Mankirdia Development Agency (HK&MDA) headquartered at Jashipur in Mayurbhanj district is working for bringing about their all-round development since 1987. This Micro Project has setup two Mankirdia settlement colonies, one at Durdura village of Jashipur Block and another at Kendumundi village of Karanjia Block under Karanjia ITDA in Mayurbhanj district in which it has successfully rehabilitated two bands of Mankirdias.

The community has shown a good response to their development programs initiated by the micro project and other agencies. By the impact of these interventions some of them have crossed the poverty line; turned literate, sharecroppers, petty businessmen, tractor drivers and sent their children to schools. All of them have given up their wandering habit and lead a settled life.

This Agency's area of operation is limited. There are other bands of Mankirdias still wandering outside the Micro Project area. In these areas, for not being permanent residents they are relatively deprived of the development interventions. There they lead a life of impoverishment coupled with illiteracy, landlessness, homelessness, etc. Influenced by the

progress of the Mankirdiasrehabilitated in Kendumundi and Durdura colonies by HK&MDA these wandering bands also want to settle down.

MUNDA

Location and Identity

Munda as a major tribe of Odisha is a classic representative of the great Kolarian race. According to Munda tribal tradition, they have migrated from the southern part of the north India and entered Chotanagpur plateau through modern Rohilakhand. They are now found in undivided Bihar, West Bengal, Madhya Pradesh and Tripura along with Odisha.

In Odisha, Munda folktales say that their ancestors had originally lived in the Mundar mountains. Several sections of Munda later on dispersed in different directions forming sub sections like Santhali Munda, Nagpuria Munda, Kolhani Munda and Tamadia Munda. Mundari is the mother tongue of Mundas. They are multi-lingual and are well conversant in local languages like Odia and Sadri for inter group communication.

Settlement and Housing Pattern

The Munda habitats are generally heterogeneous. They solely settle in separate wards maintaining safe social distance from other ethnic groups, keeping their own self-identity intact. The Munda settlements are found to be amalgamated together without any methodical arrangement. A thin road finds its zigzag way in and out of the village settlement.

Normally the Mundas own spacious houses. The majority of Munda houses are made up of at least two huts. Of these, one is called giti-ora (sleeping house) and the other is called mandi-ora (eating house). The Munda houses are supported by wooden posts and have often tiled roofs, but the poorer Mundas thatch their houses with a sort of grass called saliri with fiber of a wild creeper. The houses generally have wooden doors. Attached to every Munda house is a kitchen garden.

Dress and Ornament

The attire of the Munda is very simple, scanty and made of cotton. Their men ordinarily wear a loin cloth called botoi. On jovial occasions, young men and boys wear a longer botoi, two ends of which called condoles are allowed to hang gaily, before and behind, down to the feet. Young men also wear a sort of belt called kardhani. Very old men wear only a paltry piece of cloth about a yard long called bagoa. Besides loin cloth, the Mundas also use a piece of cloth as a wrapper for the upper part of their body. It is of two large and small varieties called barkhi and pichowri.

The Munda women generally put on a long piece of cloth called paria round the waist, allowing a portion of it called paila to pass diagonally over the upper part of their body. Little girls wear shorter cloth called khanria. The old Munda men and women seldom wear shoes. Wooden shoes are sometimes used.

Young Munda women are keen on adorning their bodies with a large variety of brass ornaments. Ear rings made of silver or even gold is occasionally used. Their ornaments include brass bracelets, lac bracelets, brass anklets, brass & glass armlets, finger rings, toe rings etc.

Clan and Kinship

Family is the central and dominating unit of their social organization being mostly patrilineal and patrilocal. Besides the nuclear family which is very common in their society, vertically extended families and joint families are also found in few cases.

The tribe Munda is divided into two sub groups – Kompat and Khangar and a number of exogamous clans, known as kilo or gotra. The Mundas are aware of the social hierarchy and place themselves in the upper caste echelon. Acceptance of food and drink is maintained as per their customary rule. With regard to descent and inheritance, the father is regarded as the head of the family. Women have special rights over the ornaments. In families having no male successor, the daughters inherit the paternal property.

Life Cycle Rituals

Delivery takes place at home assisted by a Dai of Ghasi or Lohara community. The birth of a child is usually prearranged in a separate confined lying-in-room enclosed near the rear verandah. After delivery pollution is continued for 6-9 days until the dried-up umbilical cord is detached from the baby. Then the chhati rite is performed for purification. The baby's mundane and naming ceremony is also done that day.

The Munda practice tribe endogamy and clan exogamy. Monogamy is the common practice among them. Polygamy is found in exceptional cases. They consider marriage arranged through negotiation as the prestigious means of acquiring a spouse. Other forms of marriages practiced are marriage by mutual consent, by elopement, by service, by intrusion, by exchange, by application of vermilion on bride's head in a public place etc. The whole of the nuptial cycle mainly goes through four phases like preliminary enquiries, ceremonial paying of bride price, ceremony proper and post nuptial ceremony. Remarriage is allowed in rare cases where the first wife is found to be barren, mentally retarded or suffering from infectious diseases. Remarriage of widows, widowers and divorcees as well as junior levirate and junior sororate are also permitted in the society. In Munda society, either party can divorce his/her spouse on the ground of misunderstanding in marital life, maladjustment, brutality, contagious diseases, poor maintenance, extra marital relationship and barrenness etc.

The Mundas believe that death is inevitable. Their orthodox method of disposal of a corpse is to burn and to collect the bones which are ceremonially interred in the family sasan on the annual bone burying day. However, at present they bury their dead. Post death pollution continues for 9 days. On the 10th day, rituals are performed by the priest of their community. During the pollution period, the bereaved family takes vegetarian food. The Munda groups belonging to distinct clans have separate burial grounds called sasan in the village.

Food and Drinks

The Mundas are non-vegetarians. Fowls and goats are reared for food purpose. But they normally do not eat pork or beef. Boiled rice is their staple food. Occasionally, instead of rice, they consume wheat, maize or marua. Among the pulses, biri, kandul, moong etc are habitually eaten. They also include various types of jungle roots, fruits, tubers, mushrooms etc in their daily food chart. They eat three times in a day. For condiments, turmeric and chillies are commonly used.

The favorite drink of the Mundas is rice beer or ili. Each family prepares its own ili. Besides they drink mahua liquor in festive occasions. Some Mundas use powdered tobacco rolled up in sal leaves in the form of cigarettes.

Economy and Livelihood

Agriculture continues to be the principal activity of the Munda. They are settled agriculturists. They grow rice, pulses, tobacco etc. The upland crops are generally sown by rotation. They follow two processes for cultivation of low land paddy, sowing and transplantation followed by weeding, watching, threshing and harvesting. They also produce kitchen vegetables in their kitchen garden.

They generally gather minor forest produce from thick forests along with a variety of seasonal edible roots, fruits, tubers, flowers, leaves, mushrooms, honey etc. As subsidiary occupation they rely on livestock rearing, carpentry and bamboo basketry. Munda women contribute substantially in cultivation and wage earning in addition to their household chores. Many of the Mundas also serve as skilled and unskilled workers in both Government and Private sectors.

Tribal haats are regarded as the backbone of the tribal economy. These are temporary weekly markets organized at regular intervals in designated places where the Munda people gather with their goods from their remote uphill settlements. Fishing, hunting and agricultural equipment along with food items and artful handicrafts, unique handmade earthen, metallic and wooden utensils and other products are easily available in these haats.

Social Control

The Mundas have their own Jati Panchayat for enforcing social control. It is called JatiPancho in the village level, headed by a Marua, often called Sabhapati. The Sabhapati of each Pancho is a member of ParhaPancho – the regional council headed by a Raja. Their traditional Panchayat is regarded as the guardian of their norms and traditions. It adjudicates cases relating to family matters, theft, rape, molestation, extra marital relationship, ilicit pregnancy, divorce, violation of customary laws etc and can impose fine to the offenders both in cash and kind.

The Munda people had evolved this polity suited to their needs since a long time. From time to time they have introduced changes in their form and functions to meet their modern challenges. Presently Ward members, Sarpanchs and Chairman of Panchayat Samiti take care of the developmental activities initiated in their locality.

Fairs and Festivals

The Mundas strongly believe in deities and spirits and their relationship with supernaturalism are founded on respectful fear, dependence, self-surrender and propitiation. Their spiritual union with these spirits is supposed to be accomplished concretely through supplications, rice beer offerings and animal sacrifices.

Munda religion centers round the relationship between festivals and their annual agricultural cycle. The key festivals of the Mundas are Sarhul Karma, Fagu, Sosobonga, Deothan, Mage, Honba, Batauli, Dasai, Kalam Singh Bonga, JomNawa, Ind Parab and Sohrai. They also observe Hindu festivals like Ramnavami, Dussehera, Dipavali and Shivratri. These occasions and events intensify the emotional and cultural appeal of Munda religion.

Changing Scenario

The Munda people are now passing through a phase of transition. With the development of science and infrastructure, industrialization exerts profound impact on the various aspects of Munda society. With the spread of education, Munda young people have entered into the field of industrial economy and job market. With the change of political systems, the traditional roles of the functionaries have also changed. Still their silent solid grip on their core of the world continues unabated. Scenes of change in the Munda habitation can be traced in the growing welfare institutions like government residential schools, colleges, Anganwadi centers, public health centers, veterinary hospitals, police posts and industrial establishment etc. MGNREGA program also plays a pivotal role in upholding their economy.

ORAON

Location and Identity

The Oraon is one of the major tribes of Odisha. History reveals them as a daring tribe community who fought against the British for historical injustices done to them through curbing their rights over the natural resources. They trace their origin to some place in southern India from where they migrated to Chhotnagpur plateau covering the border districts of Odisha, Bihar, West Bengal, Chhatisgarh and Madhya Pradesh. In Odisha, they are mostly settled in Sambalpur and Sundargarh districts.

The original dialect of the Oraon is Kurukh. At present, they are conversant with other languages like Laria, Hindi, Ho, Kui, Odia and Saunti. They call them as Kurukh. The word Kurukh is named after the traditional tribal hero King Kurukh or a peasant tribe Krishan or Kurukha. They are also known by names like Raonaput or Dhangar.

Settlement and Housing Pattern

The Oraon people live in multi ethnic villages in separate wards maintaining their cultural identity. In a ward, houses of 10 to 30 families or so cluster round a small space having the

dancing ground as the common platform. The houses are found scattered and connected with irregular lanes. But nowadays they build houses on both sides of the common street.

A typical Oraon house is constructed with low mud walls. Its roof is slopped and thatched with naria tiles. The house has high verandah at the back and low verandah at the front. Nowadays the well to do families construct the walls of their houses by burnt bricks and have pucca houses with cemented floor. Windows are conspicuously absent in the house, but small windows are found in new houses. A house has 2 rooms, one is used as living room and the other as kitchen. The cowshed and the pigsty are built close to the house.

Dress and Ornament

The Oraon generally use their traditional dress. The males use Kareya and females use Khanria made out of selfmade yarn and woven by a weaver scheduled caste called Ganda. Small boys dress themselves with a small kareya and girls wear putti tied around the waist. Now the younger generations are using readymade garments and foot wears which are generally purchased from the local markets.

The Oraon women adorn themselves with varieties of ornaments made of gold, brass, nickel or aluminium. They put on earring, coin necklace, beads, glass and metal bangles, finger rings, toe rings and different nose ornaments. They also use hair pins, clips, hairnet, ribbon and flower designs made of metal. Tattooing is very popular among the Oraon women and they get different parts of their body tattooed.

Food and Drink

The staple food of the Oraon is rice which is taken with dishes of some edible leaves. They generally prefer to take watered rice. Well to do Oraons take dal and vegetable curry with rice. They are fond of taking fish. Edible roots, fruits and tubers, collected from the nearby forests supplement their diet. They generally do not milk the cows or take milk products. But with modernization they have started doing it.

The Oraon take rice beer, mahua liquor and tobacco powder both in ritual and festive occasions and also in their day to day life. Homemade rice beer, called as handia is their favorite traditional drink. Both Oraon men and women like to chew tobacco powder mixed with lime. They also smoke country made cigarettes, tobacco rolled in sal leaf, known as bidi.

Clan and Kinship

Though the Oraons live in multi ethnic villages they retain most of the unique features of their customs, traditions, rituals and social life which clearly distinguishes them from other communities. The family, lineage, clan and village are their important units of social organization. The tribe is divided into number of totemic clans.

All members of a clan regard themselves as the descendants of a common ancestor, and as such marriage relations are strictly prohibited within the clan. Thus, clans are exogamous and any sexual relationship among the members of the same clan is considered incestuous.

Life Cycle Rituals

The experienced and the elderly women act as midwives at the time of delivery. After the delivery, the new born baby is bathed and the mother cleans her body in tepid water. Birth pollution continues for 10 days. It differs from locality to locality. During this period the family does not take part in any rituals. Chhati (purification rite) is observed soon after the stump of the umbilical cord dries up and drops off. The name giving ceremony is held on 15th or 21st day of the birth. When child attains the age of 8 to 9 months, the well to do families perform the first cereal eating ceremony by preparing rice porridge in a new pot.

Marriage in Oraon society follows with elaborate rites and observances. The marriage procedures vary from place to place. The rule of clan exogamy is very strict. Clan solidarity is found at the inter village level. They practice adult marriage. Preferential marriages to cross cousins and levirate and sororate marriages are still practiced. However, most of the marriages are negotiated. The other socially recognized forms of marriage and mode of acquiring mates are cross cousin marriage and marriage by elopement, marriage by force, marriage by service, widow remarriage. They also practice polygyny if the wife is barren. Divorce by either side is permissible on grounds like adultery, laziness and bad temper, with approval of village panchayat.

When a person is about to die, the relatives offer the person boiled gram to eat and water to drink with the belief that he/she should not die hungry. The deceased, with exception of children and pregnant women, are generally cremated. Once a year, when harvest is over, the earthen vessel containing the bones of the deceased Oraons are carried in a procession fpr immersion in the nearby stream or river which is referred to as Ganga. The procession is accompanied by music and dance.

Economy and Livelihood

Their primary occupation is settled agriculture. Paddy is their principal crop. The agricultural practices are supplemented by secondary occupations such as wage earning, hunting, fishing, and collection of minor forest produce. They are experts in rural arts and crafts like carpentry, tile and brick making and rope making. Women weave mats from date palm leaves and prepare broom sticks from the wild grass.

The occupational pattern among the Oraon is different from other tribes. Dependency on agricultural labour is less among the Oraon, while the participation of workers in mining, quarrying, manufacturing, processing, servicing and repairs within the industrial sector has shown a rising trend.

Bullock, buffalo, goat and pig are common livestock of the Oraons. Fowls are also kept in Oraon houses which are sacrificed on different socio religious occasions and ceremonies. Ceremonial hunting is done in the Baisakh month. The bow and arrow are the common weapons used in hunting.

During leisure time, they collect different roots, fruits, tubers, mushrooms for personal consumption and green sal leaves for preparation of leaf plates and cups. They collect fibers and date palm branches for making ropes and mats and broom sticks. Besides, they collect firewood and kendu leaf for self-consumption and also for sale.

Social Control

The Oraon had a tradition of managing their own tribal affairs through multilevel panchayats which were democratic in nature. In Oraon settlements, there is a tribal traditional village council headed by Mahato (the secular headman) and the Naega (the sacerdotal head) who are assisted by the Pujari or Panbhara and the village elders. The main function of the village panchayat was to maintain law and order and to decide disputes about partition of family property, offences against marriage rules, divorce cases, violation of taboos, suspected cases of other kinds of sexual offences, physical assault and theft etc.

Beyond the village level, a group of 10 to 12 neighbouring Oraon villages constitute a Parha under the leadership of the Mahato of the important village. The Parha has an inter village council in which the matters which are not resolved at the village level are settled. The headman of the most important village called Raja presides over Parha meetings.

In modern times, the spread of Christianity and functioning of the statutory Panchayatiraj has undermined the importance of their traditional mechanisms of social control. Thus, the traditional leadership based on age, experience and heredity has been overtaken by a new form of elected modern leadership.

Changing Scenario

Various changes have occurred in Oraon society and culture with passage of time. Oraons have accepted many new cultural elements from the neighboring castes and tribes in course of their prolonged contact with them. Apart from the government, the role of missionaries and NGOs has been important in their transformation. On the other side, the age old traditional social institutions are declining under the impact of conversion and modernization. Sacrifice of cow and buffalo is no more prevalent.

Government has launched developmental programs exclusively for tribal areas and tribal people with two-fold objectives i.e. economic upliftment through income generating scheme and area development through infrastructure development schemes under various sectors of state plan. Initiative have been taken at GP and Block level to create awareness among them on different developmental schemes so that they can reap the benefit out of it and become prosperous.

SANTAL

Location and Identity

The forest clad, undulated and hilly regions of district of Mayurbhanj and its adjoining areas of Keonjhar and Balasore districts are inhabited by the Mundari speaking tribes of which the most important and predominating community is Santal. Numerically, this tribe is the one of the largest tribes of Odisha. The Santals speak a language known as Santali which belongs to Munda group. At present, most of them can speak and understand Odia. In the past, Santals were of nomadic habit and used to wander from place to place in quest of agricultural land.

Settlement and Housing Pattern

The Santal village is comprised of a number of households surrounded by agricultural fields and pastures. The villages are big, the average size varying from 50 to 100 households. Many villages consist of a number of hamlets situated around the main hamlet. The villages are lineally arranged on either side of the road.

The Santal house may be one roomed or cluster of several rooms constructed according to the needs of the family. Some houses have compounds mostly square in shape, the huts being arranged in all sides. They do not have separate kitchen. Any of the bedroom serves the purpose. Generally, a separate shed is constructed for keeping the cattle. In every house, towards the corner of the main room, there is a sacred place, known as Bhitar, a place for the ancestral spirits.

The walls are made of wooden logs planted upright and plastered with mud. Roofs are gable shaped thatched with wild grass / straws / khaper (local tile).

Dress and Ornament

The typical way of dressing of the Santals distinguishes them from the local non tribals. The men wear rough Dhoti or Gamchha and women wear green, blue check print sarees made by local weavers. Now-a-days, mill made clothes are also used. The use of petticoats, blouses have become common fashion for young women.

The traditional ornaments which mainly consists of heavy brass bangles, anklets, armlets, coral beads are now out of fashion. They attach more value to plastic, glass and light silver ornaments.

The cicatrization mark on the arm of the male Santals distinguishes them from others not only in this world but also in underworld. It is a universal practice for them to have cicatrization marks, but no ritual importance is attached to it.

They are very neat and clean. Every day they brush their teeth and take a bath and comb their hair. On weekly market days the women wash their clothing with soap or ash and comb hair decently.

The Santal women have fascination to keep their house neat and clean. Every morning, they sweep the house and verandah. Cow dung and other refuses are thrown away.

Clan and Kinship

The Santal tribe is divided into a number of clans known as Paris. The clans of the Santals are unilateral descent groups whose members trace their origin to some common mythical ancestor. Usually each of these clans is named after some natural phenomena, animals or any object. The members of a clan are considered to be brothers and sisters and as such marriage or sexual relations are considered taboo. But recently, inter clan marriage has been allowed in the community.

In the Santal society, kinship rekations are classified into two groups, Bandhupele and Kutumpele. The bandhupele include persons related by marriage and Kutumpele include uterine kins.

Life Cycle Rituals

The most significant and turning point in the life of an individual is the marriage known as Bapla. Main restrictions on marriage are tribal endogamy, clan exogamy and exclusion of cross cousin marriage. Marriage is of following types: Marriage by negotiation; Marriage by mutual consent; Marriage by force; Marriage by intrusion; Marriage by elopement; Widow marriage; and Hindu type of marriage (diku marriage). The most common practiced marriages are marriage by negotiation and Diku marriage.

Widow marriage is permitted in the Santal society. A widow is expected to marry her deceased husband's younger brother. If both agree they marry otherwise the woman is at liberty to marry another man she likes. Divorce is socially permitted. It can be initiated either by the husband or the wife.

Kutum, an Odia term is used by Santals to designate the lineage members. They are called on to attend the death, birth and marriage ceremonies. Family, the smallest social unit among them is patrilineal, patrilocal and patripotestal. Most of the Santal families are nuclear, comprising of husband, wife and unmarried children and sometimes one of the parents.

Food and Drink

Rice is their staple food. Their staple food is substituted by other cereals such as minor millets, wheat etc. vegetables, dry fish or pulses are taken as side dishes. They relish various fruits as well including mango, jackfruit etc.

When Santals catch fish from agricultural fields or other water sources, they get a chance of enjoying fish and dry fish. The domestic animals like pigs, goats, fowls are slaughtered on festive occasions for feast. Rice beer called Handia continues to be the traditional drink of the tribe. Although Mahua liquor and toddy are taken as well.

Economy and Livelihood

The Santals practice mono-cropping if the land is unfertile and irrigation facilities are not available according to their requirement. As a result, the return from land is poor. They supplement it by forest collection and wage earning.

The main occupation of Santals is settled agriculture. Emergence of mining and industrial establishment both in and outside home districts have provided them scope for occupational mobility. In industries, most of them work as unskilled labors. With the spread of education, some of them are doing regular Government jobs. Both men and women are active, strong and laborious. When the harvesting of paddy is over, the Santals get sufficient time to be employed elsewhere till the commencement of next agricultural season.

With the passage of time, the Santals have passed the stage of food gathering and hunting and have become cultivators and agricultural laborers. Forest collection is one of the important sources of income. The weekly market called hat, plays an important role in Santal economy.

Changing Scenario

Change in the economic life of Santals is the most remarkable. The owner cultivators have turned to agricultural laborers and share croppers. The Santals have experienced many socio – cultural changes through several decades.

In spite of all these changes in their material life, they have remained essentially the same as they were in the past. In fact, most of their cultural borrowings are outward and superficial. The educated Santals are now trying to conserve the traditions by organizing socio – cultural associations.

SAORA

Location and Identity

The "Saora" or "Savara" is a great ancient tribe of India as well as one of the oldest known tribes of Odisha. They are not only numerically large but also a historically and culturally significant tribal community of the State. Especially in Odisha, they have been very intimately associated with the cult of Lord Jagannath, who according to a legendary tradition originated as a tribal deity and was later brought to Puri under royal patronage.

The tribe is called by various names such as Saura, Sabara, Sahar, Saur, Sora, etc and has their racial affinity with the proto-Australoid stock, which is dominant among the aborigines of Central and Southern India. They are widely found all over the Central India comprising the Sates of Bihar, Odisha, Andhra Pradesh, Madhya Pradesh, Maharashtra and West Bengal. They speak an ancient Mundari dialect of their own called 'Sora'. Numerically, the Saora constitute one of the major Scheduled Tribes of Odisha found in almost all the districts.

Settlement and Housing Pattern

The settlements have come up in undulating terrain and houses remain scattered. It might have linear streets and sometimes houses might be located here and there depending upon places and slopes available. Close to the settlements megaliths are erected to commemorate the dead kins. Approach roads connect them and inside they have concrete street roads and paths. Modern pucca houses have replaced their tiny old huts.

The Saora houses are single roomed and rectangular in shape and are fairly high. Though the plinth is sufficiently raised from the ground, the roof is proportionately kept low. There is a high front verandah. The walls of the houses are made of stone pieces set in mud. The walls look reddish because of red earth plaster, which is locally available and is used for plastering. From the roof hang a number of household assets like baskets, gourd vessels, clothes and umbrella. Things like spears, bows and arrows are fixed in the walls. Agricultural implements are kept in one corner of the house.

Dress and Ornaments

The long loin cloth hanging like a tail at the back ascribes the name of LanjiaSaora to this community. The traditional dress pattern of the male and the female is the uliakap and the gatungkap respectively. Ulikap is a piece of loin cloth with a thin red border and is tied around the waist. Gatungkap is with a thick red border. During festive occasions the male folk wear agurkapand tarbaul, the former is a red cloth while the latter has a red border only. The well-to-do women, in addition to the gatungkapalso wear a second cloth pansiakaparound their waists. They also wear a blouse or shirts in winter. The female Shamans wear a piece of distinguishing white cloth palukapor pagakap during their trance. But with the trend of changing times, this tribe too has taken to the modern ways of attire.

Both the Saora men and women are fond of ornaments. Ear rings (tanangdrulu, pir-piriag, anangulu, etc.), nose rings (andangkup, tarbakup, masiakup), bracelets (sandaika, galadanka, dananka, lalanka), toe rings (enjeng), ear rings (engsee), necklaces (tangam) are the female's ornaments. The males follow with ear rings (pagdi), nose rings (guguku or angerku) and necklaces (paguada).

The male and female have different hair styles too. They apply tola oil wash their hair with clay soil. They use clips (susidang) and style their hair like french roll (tandikui). The male style is called puti-re, where the hair has been shaved from all sides leaving a prominent tuft in the middle. To further enhance their beauty (taramtam), the Saora male and female take to tattooing (tangtangba) their faces. Women tattoo designs on the cheeks, chin and the forehead. The men, however, restrict tattooing only to their foreheads.

Clan and Kinship

Saora family is patriarchal (Jujukukud) and patrilocal. The most common type of family seen in this society is nuclear family called Abakukud. After the death of the family head (senior male member/ father) the sons may live separately if they wish). In the inheritance of property, the male dominance or the male gender preference is well observed. A daughter may take the ownership of her mother's assets. After distribution of property among the sons the parents live with the youngest son for which he is given with little more share. The sons can only perform mortuary rites (Goar and Karja) of the parents. The girl children are given importance for their hard work both in household jobs and in swiddening. In the absence of clan, Birinda plays a great role in rituals and functions of their society.

Food and Drink

The principal food item of the Saora is rice (kudu), cooked rice with gruel (darikul), rice cooked with red sorrel leaves (sunsunab or ubakul). Of the millets, sorghum, bajra, ragi and other minor millets add substantially to their food habits. Usually, they prepare gruel (tungdakul) out of such cereals and millets. They hardly take vegetables. They take meals 3 to 4 times a day. Children up to one year do not eat rice. They also collect many varieties of tubers, mushrooms, leaves, etc. from jungle for supplementing their main food.

Meat is an important item on the festive occasions and treatment of guests among traditional Saoras. They take meat of fowl, goat, pig, buffalo, cow, etc. Christian converted (Baptist

group) are forbidden from these items. They take three types of liquor that is arasal (sap of *Caryotaurens*) or ali, abasal or aba (*Madhucalongifolia*) and sindisal (sap of *Phoenix sylvestris*). The first two are usually taken by them. Any festival occasion without meat and liquor is meaningless for them. Both the genders can smoke. Tobacco (*Nicotiana tobaccum*) is not cultivated by them but purchased from market.

Life Cycle Rituals

Life starts from the conception of mother. The Saoras believe that the Sun-spirit is responsible for it. So, after the child birth a ritual Tapnagon is made for Sun spirit. Though girls are not neglected in their society still a son is always preferred. When labour pain starts the woman is taken to sit in a dark corner of the house. The traditional mid-wife called Sududianboi massages Karanja (*Pongamiapinnata*) oil on her belly. The mother is considered polluted for three days in case of a girl child and for four days in case of a boy. She is given with hot rice and salt only. After that a purity (Irna) is organised by Sududianboi, the mother and other female kin and relatives. The name giving ceremony called Abnimon takes place on any day within one year.

The Saora marriage is not an elaborate affair. It is rather queer that the people, who spend most of their resources in observing a chain of expensive festivals and ceremonies, celebrate their marriage in a very simple way. There are various ways for acquiring mates. Few of them are, marriage by negotiation, marriage by capture and marriage by service. Of all these types marriage by negotiation is most common and considered prestigious in the society. The arrangements are made by the parents and relations of the groom who take initiative in the matter. In a stratified society of the Saoras, negotiation is made between two parties having equal economic and social status. For a son of Gomang (secular village head) another Gomang's daughter may be arranged and a Royat (commoner) may not venture to propose for a Gomang's daughter. The Saoras do not observe village exogamy except where the village is inhabited by the members of one Birinda. In big villages having more than one Birinda marriages are often arranged within the village.

The Saora cremate their dead. But persons dying of cholera and small-pox are buried. As cremation is a family function, Birinda members participate in it. Some members collect wood for the pyre and the girls who are trained to act as assistants in funeral rites fetch water and prepare turmeric paste. Then, the corpse is carried to the cremation ground in a procession accompanied by a musical band. The next day, they visit the cremation ground to examine the ashes with a view to find a sign of the cause of death. In the evening a fowl is killed in the cremation ground and cooked with rice which is shared by the members of the village. Then after a year or two the Guar ceremony is performed. On this occasion, menhirs are planted and large numbers of buffaloes are sacrificed.

Economy and Livelihood

The Saora economy of the past had been based only upon shifting and terrace cultivation. Now-a-days they have taken up varied occupations to improve their economic conditions. Now they practice shifting, terrace and low land paddy cultivation and also horticulture. However, horticulture is finding more favour as against the other forms of cultivation,

especially cashew plantations. All these forms of cultivation in addition to the sale of forest produces provides for their subsistence. Since these Saoras have very meager land holdings, many of them are now migrating to Assam and Arunachal Pradesh to work in tea estates there. There they have established saving co-operatives by making regular collections from its members. This money is disbursed as loans at the time of need. One who takes a loan must pay back in kind of labour.

Way back in their homelands, the women are more laborious and hard working. They put in a good contribution to their household economy. They are the principal workers in the household as well as in the fields. The men, away from their homeland, equally labour hard for benefit of their employers. Saoras also find employment with the Government, private service, and temporary wage-earning sectors, temporary employments and even small businesses.

Social Control

There are three important groups in Saora community having specified status and functions in a hierarchical order. Gomango at the top of the hierarchy is the head of the political and judicial structures. He is the chief decision maker, called as SudaBicharmar. Next to Gomango is Dalbehera. When a Gomango dies having a minor son, the son of the Gomango remains as the nominal head and the responsibilities are discharged by Dalbehera. Karjee is the person who reports to Gomango through Dalbehera always.

Fines (aptintinaleji) are charged in kind of live stocks, buffalo (bungtel), goat (kumme), fowl (kanseem) etc. If a person is found incapable of paying fines he has to give his land on mortgage to anybody or to the Gomango till the fine is realised. If a person levied with a fine is landless, then he will have to serve in the Gomango's field or house till his penalty amount is realised through his labour (kambari). The fine collected in kind of animal is utilised for a common feast.

In the traditional system of decision-making women are never allowed to participate. But now the women are taking part in decision making in the Panchayatiraj system. Women have also been used to the police stations and lower courts. The problems of Christian converts of the Saora are decided at Mandali. People committing crimes are boycotted by the Church Mandali and levied with heavy fine.

Fairs and Festivals

Saora religion is animistic. They believe that every natural object such as Sun, Moon, Water, Forest, Fire, Animals, Trees are supernatural powers and thus are characterised as Sonums. They believe in the presence of soul and the life after death. They worship their deities and spirits in different occasions throughout their agricultural calendar. Among these new eating festivals like udanabdur (Mango new eating), Ragan abdur (Redgram new eating), rub-da-singpur (rain worship), Lajjab (worship offered to ancestral spirits and earth goddess for bumper crops), Gungupur (betterment of livestock), Madapur (mist worship), Kurual (better production in swiddening), Manduasumpur (for village welfare) are important. Other festivals are situational. On spirits demand, Sharmansorganise worships for them. Their ceremonies are much expensive due to involvement of big budget for

sacrificial animals i.e buffalo and goat etc. The expensive religious affairs make them indebted. For fear of wrath of spirits, who turn malevolent in case of inadequate treatment, many people have accepted Christian religion.

Changing Scenario

The problems faced by the Saoras are manifold and deep rooted. Diminution of productivity of swiddens over the years and the ban imposed by the Government against shifting cultivation and hunting has affected their economy. Added to this is unchecked exploitation by the Dombs, their Scheduled Caste neighbor, over them. The timid and industrious Saora have endured all the evils for centuries. Sometimes when things have gone beyond their limit of tolerance, they have rose en-masse to register their protests. But by and large, they have remained a simple, shy and peace-loving folk. Various welfare measures initiated by the Government have resulted in exposing the Saora more and more to outside contact and pressures of ever-advancing and powerful social, economic and political forces.

TRADITIONAL MEDICAL PRACTICES AND RELIGIOUS ATTRIBUTES

Tribal medicine men are individuals of excellence known by different names in different tribal societies. They play a vital role in catering the healthcare needs of millions of tribal populations. Their own community recognizes them as competent to provide healthcare by using bio-resources and mineral substances. They use some methods that have a support from religious beliefs to cure people suffering from various diseases and disabilities. They are capable of demonstrating an amazing range of medical skills and expertise that extends from treating emergencies like poisonous bites and safe delivery to curing asthma and other bronchial problems having complicated features.

In thousands of tribal dominated villages where hardly any medical facility exists, they are the only source of support and hope for survival. They are the carriers of healing traditions, which have been orally transmitted from generation to generation. They are the knowledgeable persons who directly use the medicinal herbs, roots and other parts of the plants for healing treatment. They enjoy the status of neither secular nor sacerdotal chiefs in their societies. From a cross-cultural perspective the role of tribal medicine men may coincide with that of an astrologer, a sorcerer, a witch doctor, a diviner or the like depending upon the social structure of an ethnic group. In anthropological term they are labeled as shamans who illness of people by using medical practices and herbal as well as mineral medicines. They provide client-centered, personalized healthcare that is culturally appropriate, holistic and tailored to meet the needs and expectations of the patients. It is often seen with the tribal medicine men that they are well aware of the man-plant-animalspirit interplay in the cause and cure of a disease. They view this interplay through their conservative worldview and belief systems. It is also seen that a medicine man is well respected by the community. The tribal communities have a strong faith on magical worships and sacrifices and therefore believe that if a medicine man administers medicine using magic as a tool, the disease would fast disappear and the state of well-being of the patient would remain preserved for long.

The tribal medicine men also play a key role in plant protection and conservation and possess skills on sustainable harvesting without causing any damage to the nature. But the irony is that in spite of their deep-rooted knowledge on the healing tradition, their traditional role as a health provider has shown a decaying trend due to diversified factors like promotion of westernized system of healthcare, massive depletion of medicinal plant resources, lack of willingness of the younger generations to learn and adopt the practice, lack of dissemination and transmission of knowledge.

In their studies many scholars have highlighted different aspects of tribal health and medicines such as: (1) extent and nature of health problems, (2) genetic and ecological issues

of health, (3) socio-cultural aspects of health, (4) practices and specialists of ethno medicines, (5) health related policies and programs etc. Studies relating to tribal medicines have broadly revealed that for the treatment of their ailments, the tribes in different countries take mostly the herbal medicines prepared from various plants (Das and Patnaik, 1993-94; Gill et al., 1997; Rajendran et al., 1997; Varma, 1997; Jamir, 1997; Kumar and Goel, 1998; Jose Boban, 1998; Mibang and Choudhury, 2003; Vijayendra and Bhat, 2004; Singh, 2004; Murmu, 2004; Kar, 2004 and Rath, 2004). Among the tribes, herbal treatment is utilized for a wide range of ailments ranging from common cold through cardio-vascular disorders to nervous breakdown (Gill et al., 1993 and Palekar, 1995). In tribal societies, the elderly persons normally know some common uses of herbal medicines that they administer to treat their ailing family members. However, when Things go out of their hands, they preferably take help of the tribal medicine men for treatment of diseases. The tribes and tribal medicine men commonly believe that diseases are caused due to both supernatural displeasure and natural factors and therefore the treatment is invariable carried out by provision of herbal medicines preceded by some offerings ritually made to specific supernatural powers (Sinha, 1979; Das and Patnaik, 1993-94; Nayak et al., 1996; and Kaushal, 2004). Thus, the tribal healthcare system is inextricably woven into the trial belief and ritual system (Chand, 1988; Hemlata and Kumari, 2004 and Tribhuwan, 2004).

The tribal medicine men have a profound knowledge about herbs and their curative properties (Chand, 1988; and Rath, 2004). They are capable of prescribing herbal medicines for various diseases (Tiwari, 2001; Dash and Pradhan, 2002; Tribhuwan and Sherry, 2004; and Rath, 2004). They play a major role in providing healthcare services to people but their traditional healing system is facing challenges from the modern healthcare system. They are now struggling hard to sustain their healing practices but most of the scholars have not given due attention to this issue in their studies.

Health Care potentialities of the Tribal Medicine men in Mayurbhani

The tribal communities in Mayurbhanj district, such as Santal, Munda, Bhumij, Kolha, Kharia and Mankirdia have rich perceptions and practices of traditional medicine. The region is a landmass of high hills and forest rendering the area inaccessible and ill communicated. The health infrastructure is in disarray with non-availability of, and inaccessibility to, modern medical facilities. The tribal communities have no other option than to depend upon the traditional healing practices professed by the tribal medicine men for curing their illness. The tribal medicine men possess tremendous knowledge regarding healing practices and have proved to be successful in treating many chronic diseases like, malaria, diarrhoea, stomach problems, gynaecological problems, asthma, piles, rheumatism etc. These practitioners are neither certified doctors nor have any formal training. They have learnt the practice from their fathers or the master medicine men since their childhood through the process of roaming around forests in collecting and identifying plants, and learning from their teachers the medicinal uses of plants and treatment procedures. They have also possessed some palm leaf inscriptions on healthcare that they follow for their practice. Moreover, they have the skill to identify the socio-cultural, behavioural and

religious implications of illness suffered by their patients. For this reason, they treat the patients in ways that are culturally approved and socially appreciated.

The initiation of a person to a medicine man involves a socio-cultural process in the tribal communities. The process however varies from community to community but the initiation to medicine man is a mandatory practice. It is through the process of initiation that a learner medicine man or son understands the religious and cultural background of healthcare of his community from the master or father. While transferring the healthcare knowledge, the master medicine man or father takes adequate care to teach the learner or son about the healthcare traditions of his own ethnic group. It is done through the study of own religion and culture. The knowledge now exists in undocumented oral form and is purely ecosystem and community specific. It encompasses information relating to home-remedies, food and nutrition, obstetrics, bone setting, treatment of poison, chronic and common ailments, acupressure, pulse diagnosis, use of plant, animal and mineral material for treatment of diseases. The diseases for which home remedies are practiced by the tribal medicine men mostly include diarrhoea, dysentery, loss of vital fluid, pain in ear, headache, common fever, scabies and malaria. The following table shows the knowledge of tribal medicine.

Perception, Diagnosis and Treatment of Diseases

Tribal medicine men believe that the physical and mental activeness of a person is a sign of one's good health. If people get inactive or if they are unable to work and need to take rest and are reluctant to take food properly, then they are treated as suffering from some diseases. They believe, for instance, that anyone having a ghost under control can witchcraft a person to let him get a disease. Even a person can get illness when supernatural powers get anyone with him / her. Basing upon this faith the tribal medicine men employ magical practices and drug treatment to cure the patients from illness. The tribal medicine men of the region adopt various methods for diagnosis and treatment of different diseases. They usually initiate the diagnosis by feeling the patient's pulse of heartbeat. That apart, they observe and recognise the symptoms for diagnosis of the diseases. In this way, out of their own experience and knowledge they easily define the disease that a patient suffers from. Sometimes, for the sake of diagnosis of ailments like broken bones or intestinal disorder, they touch and feel the aching body part. Urine tests are also done for certain diseases as a part of diagnosis. For diseases like jaundice, tuberculosis, stomach pain, etc. the patient's urine is put in mustard oil. Depending on how the colour of urine changes, in what direction the urine mixes with the oil, how it spreads, and whether bubbles are created, the medicine men make diagnosis of the disease. Here he plays the role of a pathologist without using the microscope.

The Oraons still depend upon their traditional health practices during illness and disease. They follow certain age-old techniques and methods of preparing medicine from herbs, plants, etc. locally available. The village medicine man locally called as ojha, baid. gunin and 'kabiraj. A kabirqj is medicine man, who primarily herbal medicine but before preparation and administration of herbal drugs, observes some ritual observances. The laymen do not prepare any herbal medicine because they do not know all the ingredients of it. It is also

because it involves intervention of some supernatural power, which only the village medicine men are believed to posses. Together with herbal medicine, the village medicine man or a kabiraj employs healing rituals, by invoking the intervention of supernatural forces. On the whole the Oraons believe profoundly that traditional 'method of diagnosis, healing, and treatment. But many a times the Oraons follow both traditional and modern methods of health care practices.

Bhunjia Traditional Medical Practices

Concept of diseases

Unlike other people the Bhunjia define health in term of the capability of a person to do work. They decide health and illness according to his ability to perform his regular works like attending household works and agricultural duties. They identify illness through visible symptoms or acute bodily discomfort. They persist longer duration symptoms as severe illness and attribute unseen spirits for it.

They also perceive health in term of blood contain in the body. They consider red blood is good and sign of healthy body. They believe that as the person grows older, red blood turn to blackish red and the quantity of blood decrease indicating lesser strength and decreased health status.

The classification of diseases can be broadly classified into two categories such as (a) physical diseases and (b) spiritual diseases. They believe that the physical diseases respond to medicines that includes certain materiamedica of animal, vegetable or mineral origin, but the spiritual diseases respond either to the sorcery, black magic, evil eye, spirit intrusion etc. They also blame the withches and the sorcerer's who are found among the tribe, to be causing ill health of certain people through black magic.

The belief system

The Bhunjias believe that every serious disaster, epidemic or any form of disease takes place following infringe and violation of social and ritual taboos. Illness of any kind is believed to be caused largely by malevolent deities and evil spirits. They also believe that violation of social and religious taboo also causes bodily ill health. Although some people think that untimely bath, irregularity in taking food, rigorous climate of the area may be responsible for physical ill health.

Ancestral spirit is often attributed for illnesses. They worship Mata and Chhatigudi to protect them from any kind of illnesses in a regular interval. Failure of worshipping them is believed to cause diseases. If anybody gets injured by falling from trees, they also attribute it to evil spirits. They believe that the older the tree, more the chance of evil spirits. Thus, they are afraid of going such places during noon and evening. The unmarried people are believed to be more prone to attacks.

Medicine men

There are two health practitioners found among the Bhunjias: Gunia (magico religious healer) and Baiga (herbalist). Gunia treats the diseases through various religious methods. His role is resorted when the cause of illness is attributed to evil spirits. On the other hand, the Baiga's treatment is resorted when the cause of illness is identified as a natural substance or disturbance in body composition.

Baiga and Gunia are related to each other. Baiga is consulted when the Gunia fails to treat certain diseases. Both the positions are hereditary. Besides, there are other disease specialists found in the villages such as

- 1. Bone settler
- 2. Gardi (specialist in curing snake bite)
- 3. Disease specialist
- 4. Dai (traditional birth attendant)

The bone settlers are specialized in curing bone fractures. Their therapy is absolutely manifested by herbs. The technique and technologies developed is purely local. The Gardis chant mantra by holding the patient in a sitting manner. Some of them paste the bark and fruits herbs separately and pour the juice, according to needs, in the nostril. Most of the disease specialist possess knowledge on gynecological problem and its treatment, fertility issues, menstruation disorders, abortion, sterilization etc. They cure the diseases by means of plant medicine. The Dai is involved in spiritual as well as physical healthcare of the mother and the child. They render their services purely on voluntary basis. They have gained this knowledge from their mother-in-laws.

As far as their social status is concerned, they enjoy the special status and are highly respected. They not only provide health care but also important public functionaries in many socio-political institutions of the community. Disrespecting them in any form may result in illness. They do not refuse anybody to handle any case even during night time. As the token of appreciation for their service, people offer them cloth, grain and paddy.

Medicines: prescription and administration

Baiga is the herbalist of the Bhunjias who administers herbal medicines to cure diseases caused by natural agents and bodily discomforts. However, his treatment methods are endowed with certain norms and beliefs. He possesses enormous knowledge on the medicinal plants. The medicines prepared by the Baiga are the extract and mixture of the plants' root, bark, leaves. When the Baiga is unable to treat any diseases, he suggests the patient to consult a qualified doctor.

The medicines are simple and never have complex formulations. It is prepared by pressing, grinding, decanting, incinerating and filtering of medicinal ingredient. Very few medicines are mixed with additives to enrich the medicinal quality and the retainers to check the loss of potency due to long storage. Most of the medicines are water based and some of the medicines used externally are oil based.

The traditional medicine men administer the medicine in two ways. They transmit invisible medicine by uttering words addressed to unseen forces or by body gyration or by administering physical medicine by external application or internal assimilation.

Ref.: Ota, A.B. & Mohanty, S.C. (Ed): Particularly Vulnerable Tribal Groups (PTGs) of Odisha, Volume III, (Biology, Health & Ethno-Medicine), Scheduled Castes & Scheduled Tribes Research and Training Institute (SCSTRTI), Bhubaneswar.

Bonda Traditional Medical Practices

Concept of diseases

The Bonda concept of disease is as primitive as the tribe itself. Anybody who is incapable of perform work i.e. income linked work, according to them, is supposed to suffer from disease. They believe ailment as a physical condition that requires rest for recoupment. They do not consider deficiency as a form of disease. On the contrary, it is termed as the non-availability of sufficient food to fill the belly.

If a person with open wounds attends to economic pursuits, he cannot be treated as diseased. If a man delivers good in lesser quantity, he is considered as an ailing person.

Output not only in terms of goods but also in services determines the health of a Bonda woman. The mentally retard persons, the xanophobists and the polio-stricken persons are not considered diseased but recipients of divine curses.

The classification of diseases can be broadly classified into two categories such as (a) physical diseases and (b) spiritual diseases. They believe that the physical diseases respond to medicines that includes certain material medica of animal, vegetable or mineral origin, but the spiritual diseases respond either to the sorcery, black magic, evil eye, spirit intrusion etc.

The belief system

They believe in occurrence of diseases as the work of evil spirits, anger of clan Gods and bongos, breach of taboos etc. When accident or body disorders repeatedly and in a cyclic order the Bonda shift their belief from human error and whim of nature to wrath of angry benevolent Gods or mischief of the malevolent spirits.

They also believe that over cooked or over spiced food lacks vitality, potency to supply energy against all clinical odds. They do not know that certain minerals are essential to body metabolism and growth as well as creation / secretion of body fluids. They do prescribe certain cereals and food items in connection with certain ailments like meat is prescribed to someone with excessive bloodlessness, iron and calcium rich foods are prescribed to lactating mothers etc.

The green tinge of edible green leafy vegetables, they believe, retains Life from the plants from which it is obtained. Similarly, the quality of meat is measured in the terms of redness it possesses. They do not hesitate to consume caked blood and swallow pieces of lever raw for the reason that these items are more read than the meat.

The change in food habits and adoption of modern life style which is still a taboo in the Bonda society has increased the incidence of ailments. The tribe is considered a static tribe. This might be due to the prevailing social practice of marriage between elderly women and younger men.

Medicine men

If medicine is a social institution, then a medicine man is an office bearer in the society. A Bonda medicine man knows the medicinal qualities of different parts of the plants, the matters of animal origin and abiotic objects.

The Bonda medicine men are usually males. A good medicine man attains the status of a hero, for his ability to heal the ailing persons. The medicine men in the Bonda community are usually classified into three broad groups namely the guru, the Dissari and those laymen who have mastered the use of certain plants and animals and minerals.

In a Guru one finds the heredity of both the medicine man-ship and the medicine man. A Dissari is an astrologer cum medicine man who prescribes indigenous medicines and performs magical rituals. He has a better knowledge of diagnosis, cure and treatments and is more vocal and action oriented than the Guru. The Gurus and Dissaris can be usually identified by their lean and hungry like body appearance with unkempt long lock of hair. A Bonda woman may practice medicine both material and institutional but she is rarely addressed as a 'Gurumai' or 'Dissari' though during pre and post marriage period.

The tribe has a pharmacopoeia of its own for diseases that occur commonly in its habitat. However, the medicine man has little knowledge about occurrence of different diseases. For example, all sorts of pains are considered as similar in their origin and their antidotes are the same. Their power of reasoning towards fever is limited to one cause. Thus, the diseases may be many but the medicine men of the area club them together because the ailments have similar visible effects on body system and they start treating them accordingly.

The medicine men have carved out a niche for themselves in a tribal society. They are respected, consulted for any abnormalities observed in the inner body as well as the outer environment that influence the condition of human body. If the son of a medicine man has no knowledge of medicine, he cannot become a medicine man on hereditary basis. They have higher social status and are found not dependent on healing practices to earn a livelihood.

Medicines: prescription and administration

The plants used by the Bonda for medicine are never cultured but collected from the nature. These plants have different properties but the medicine men of highland must have hit upon the utilization of one or two properties. A Bonda patient never uses prepared and stored medicines for long time. Fresh medicine is prepared to last for not more than 3 uses / applications. Strongly very few medicines used by Bonda are of animal origin.

The Bonda medicines are simple and never have complex formulations. It is prepared by pressing, grinding, decanting, incinerating and filtering of medicinal ingredient. Very few medicines are mixed with additives to enrich the medicinal quality and the retainers to

check the loss of potency due to long storage. Most of the Bonda medicines are water based and some of the medicines used externally are oil based.

The traditional medicine men administer the medicine in two ways. They transmit invisible medicine by uttering words addressed to unseen forces or by body gyration or by administering physical medicine by external application or internal assimilation.

The physical medicines applied externally are strong and have repetitive use. These medicines are made to assimilate with the body through massage, annointation and through pressure adhering. Before the administration of the medicines, the body condition, body weight and the time of the occurrence of the disease is also considered.

One of the basic goodness of the Bonda medicine is the absence of any side effect on the patient. If the advice of the medicine man is strictly followed, a Bonda believes, the patient gets cured. If he has doubts about the medicine or if he has done any offended the deities, the medicine fails.

Methods of diagnosis and prescriptions

The first school of medicine men are the shamans who strongly believe the diseases as the work of evil spirits and unsatiated spirits. The second school of medicine men are the expert artists who intermix medicine and sorcery. The third school of medicine men consider medicine as a matter and not as a social institution.

The Bonda indigenous medicine is diagnostic but not systemized and is not confined to only one concept i.e. healing the patients from his maladies. For this they use simple medicines derived out of different parts of the plant. For enriching the medicinal qualities or minimizing the side effects due to existence of other ingredients with properties supportive to the existing ailment the indigenous medicine is mixed with other ingredients. The Bonda being a primitive tribe is inclining very slowly towards complex medicines.

A Bonda medicine man not only prescribes medicine but also acts like a chemist cum druggist. The traditional medicine men are also the patent holders of certain formulations. The prescriptions are not only indicative of the medicines and their causes but also considered as medicines. The gurus and Dissari ask for certain bird or animal, their prescription also favor certain colors, patterns and likes.

Curing practices

The curing practices are as varied as their schools of medicine men. The gurus hardly clean themselves before attending the patient. They chant mantras – chain of words in poetic rhythm, boding their heads and waving hands towards abode of village, forest, hill and stream deities and even towards the sun occasionally clapping and raising the pitch to high or low tone.

During the process they use vermillion and incense sticks. Gurus touch the offering items to the patients. Others take out a little earth from the Pooja site and apply on the body of the patient. The gurus also promise offerings like black buck, black cock and coconuts to the malevolent spirits on behalf of the patients.

Taboos and restrictions on diet and behaviour

Being an unstratified and simple society, the Bonda observe a few taboos. These taboos are bi-faceted i.e. dietic and behavioral and strictly adhered to by elders and those who are yet to see or feel modernity through vertical and horizontal mobilization of men materials and information.

The taboos in circulation among the Bonda are non-administration of medicines before spiritual submission of medicine man. Before collecting the medicines from the natural surroundings, the medicine man purifies his soul by chanting the names of the village deities and spirits residing in their abodes, like, hills, forests, streams etc. There is no taboo relating to consumption of food and human action.

The change in the Bonda tradition also prohibits culturing of certain medicinal plant, like adsang near their houses. It is even not allowed to grow near the villages.

Ref.: Ota, A.B. & Mohanty, S.C. (Ed): Particularly Vulnerable Tribal Groups (PTGs) of Odisha, Volume III, (Biology, Health & Ethno-Medicine), Scheduled Castes & Scheduled Tribes Research and Training Institute (SCSTRTI), Bhubaneswar.

Didayi Traditional Medical Practices

Concept of diseases

The Didayi considers ill health as a short term phenomenon and as a body condition that requires rest and food supplements greater than the usual intake and which either impairs a part of the human body or the whole body to perform its usual chores and requires the administration of medicines and fortification of mind or soul with verbal or symbolic communication with the unseen forces the spirits, Gods and Goddesses etc. The demarcation line between the ill health and disease being very thin and fragile, the Didayi sums up both as the state of body that causes the non-performance of manual work. The tribe does not consider deficiency as a form of disease but the curse of the abused ones.

A section of Didayi mostly living in remote or cut off areas link deficiency to non-availability of sufficient food to fill the belly. Their counterparts, the so called exposed Didayis reason out deficiency as absence of certain types of food in dietary chain. However, both the sections do not know the role of vitamins and minerals in occurrence of ill health / diseases.

The belief system

Absence of personal hygiene and too much attachment with the domesticated animals and the diseased ones causes the localization of certain diseases /ailments in an endemic form. These are the reasons which separate upper Didayis from the Didayis living in the plains. The latter give more importance to the personal hygiene. The Didayi believes that the human body consists of two objects. The visible object has the upper cover that protects the body from heat, cold, attack of insects etc. and the body inside the upper cover consists of

bones, flesh, blood and other delicate things. The inner body usually fall prey to the unseen and malevolent objects.

The Didayi is yet to reason out the existence of microscopic living beings that cause diseases. The lice, maggot devouring the dead muscle tissues of a septic wound or the worm coming out of the rectumnal channel along with the stool are the repercussion of the evil deeds of the patient.

A Didayi usually suffers from seasonal diseases due to change in external surroundings. Common cold, cough, fever, headache as well as diarrhea are considered to be seasonal diseases. Quite a lot of Didayi people suffer from corn, roughness of skin, ringworm, crack on heel or lips, boils and septic wounds. They consider these ailments to be the companion of their daily work and never consider them as diseases or ailments.

Medicine men

In a primitive society, the medicine is not considered as something derived from the biotic or abiotic object that is administered into the body system in smaller quantities but also as a series of actions /processes that is chiefly followed by the medicine men to muster the will power of the patient to take the medicine and obtain positive results. A medicine man, therefore, is none other than kingpin of the institution.

A medicine man, in a Didayi society, enjoys prestige and dignity. He is considered as a man of clarity, knowledge, patience, initiative, dedication and drive. A Didayi, however modernized may be, considers a medicine man an above an average person in their society and behaves appropriately in the presence of a medicine man.

A Didayi medicine man is also seen as a widely travelled man with larger contact with the members of other ethnic groups. The traditional medicine man practicing healing activities among the Didayi may be clubbed into two groups. Namely (a) the dormant group and (b) the active group. The members of the former are shy, do not exhibit their expertise unless asked for and have command over very little variety of the medicinal plants. They are feared more by the members of the community because they are considered to be in possession of 'Black Medicines'. The latter have free access to all sorts of people living nearby.

This section of medicine man also has healing practices which almost coincide with the local vaidyas and quacks. Many medicine men belonging to this section also confess that they have acquired the expertise from an Oriya speaking non-tribal emigrant. From among the two groups of medicine men the former is dependent more on 'voice and action medicine' and the latter more on 'material medicine'.

The village headman the Naik, the village priest Palasi or the village messenger the Chalan, generally act as medicine man. These posts normally are hereditary in male line. Thus, the knowledge of medicine manship is orally transmitted from one generation to another.

The Didayi medicine practitioners are usually males. In the plains, the Didayi address their traditional healer, as Guru. In remote villages some old Didayi women occasionally take resort to 'touch therapy' to cure headache, backache, muscle cramp and pain in joints. Oil or

plant extracts (juice of leaves, barks, roots, etc.) are usually utilized. The Didayi women also give certain roots or herbs to pregnant women for smooth and easy delivery of child.

The Didayi places a medicine man at a high level in their society. They are consulted for any maladies. The medicine man also maintains his lifestyle tuning to the respect shown by others. Generally, he is affluent, well informed and quick at reasoning out the causes of diseases.

Medicines: preparation and administration

The indigenous medicines used by the tribal groups are almost identical, both in the preparation and administration. In sub tropic deciduous forest areas, the tribes find a lot of plant species ranging from 'hard trees' creepers, highly sensitive succulent under growths to parasites and fungus. The Didayi land lies in sub tropic deciduous forest areas. As a result, a variety of plants have been identified by the indigenous Medicine men as having medicinal qualities. It is strange to find that very little kinds of botanical species have been incorporated into the pharmacology of the Didayi medicine man. Except the surgery all other ways of treatment have been adopted by the Didayi Medicine men. The medicine man in fact is the driving force behind the medicine -the social institution.

The Didayi school of medicine consists of the use of Mantra and Aushadha. Of late, a few Medicine men have started to advice the patients to wear fetish amulets and talisman containing ash, root and dust fortified with mantra, around forearms or neck. It is evident that two types of treatments are adopted to cure a patient. From among the two, psychosomatic treatment is given to the patients where causes of diseases cannot be attributed to any visible agencies. They apply 'Mantra' to treat such patients. When a Didayi medicine man decides that a patient is suffering from the action of visible agents, he goes for somatic treatment by application of medicines either externally or internally or both.

By trial and error method the tribe has prepared a pharmacopoeia based on locally available materials and latter fortifying and enlarging it with induction of thoughts and materials acquired from outside. It is also noticed that the diseases of civilized man (Frazaer 1957: p-62) are absent in Didayi country.

The Didayi indigenous medicine is simple, less expensive, less dietetic, more curative but slow in action and is confined only to heal a patient from his maladies. As a result, preventive and aftercare somatic medicines are not found in their system. The Palasi, in general, boasts of prescribing preventive and aftercare medicines which are psychic in nature.

The 'Osha' is the common word for medicine used by the enlightened traditional medicine man in the Didayi country. To its contrary is 'Bisha' which they belief restricts the normal activity of a man and ultimately leading him to death. Bisha, they consider is the inherent part of the black magic. The medium of trapping the medicine derived from a plant is water. Of late, imitating the local vaidyas, they have used honey, oil and milk butter (ghee).

Most of the Didayi medicines are applied externally. Even for the acute stomachache plant extracts are massaged externally. The medicine man has a ready stock of dried herbs (leaves,

barks, roots, seeds etc.). He himself collects the medicinal plants, prepares the medicine and gives it to the patient. Some of the plants are well known to the Didayi people for their medicinal qualities. In this case the efficacy of the medicine depends on the righty quantity of medicinal ingredients in a right manner. It is the medicine man, who due to experience, excels others in this front. Most of the medicines are prepared 'in situ' with simple apparatus available locally. The apparatus used are the knife of various sizes, grinding stone, rudimentary mortar and pestle, a few metal containers etc.

The prepared medicines are applied once or twice in case of wounds and fractures. The oil-based medicines are repeatedly applied till the patient feels ease to bear the effect of disease. The method of massage of the medicine man implies that he has a good knowledge about the structure of the muscles, position of the never centres and orientation of the cramps. Apart from these epidermal applications, a Didayi medicine man applies his medicines internally into the body system through oral doses or inhalation of smoke. The respiratory disorders are done with the inhalation of the smoke emitted from the incineration of the medicinal plants or resins of 'hard trees' (sal). The 'Oral Medicines' are always taken fresh for seasonal diseases. However, in chronic cases non-aqua medicinal doses are prescribed.

Methods of diagnosis and prescriptions

The prescriptions of a Didayi medicine man consists of antidotes-both material and spiritual, that prevents diseases. This primitive society still believes that the causes of the diseases are (a) the projection of morbid objects or substances, (b) abstraction of something from the body and (c) the action of sorcerer on some part of the body or some objects once connected with the body of a person.

Didayi prescription not only deals with medicines but also with other supportive measures, like maintenance of body hygiene and alternation in usual dietetic habits. There exists little transparency and openness in their therapy which need further scientific testing. Being docile in nature and not as rigid or individualistic, the Didayi medicine and its methods of use are akin more or less to the Ayurvedic system. Their prescriptions are institutionalized by higher doses of influence from the *kavirajs*, mostly the nontribal settlers.

The prescription makes it mandatory for the patient to visit the medicine man or vice-versa. This establishes a better patient medicine man relationship and gives scope to the latter to alter his medicine during the course of treatment. The intake of medicines is more systematized and more repetitive in case of the Didayi school of medicine.

The prescriptions given by a Didayi medicine man is the oral explanation to the causes of ailments and following of certain codes of conduct as well as observance of certain other restrictions. Ironically the prescriptions differ from one medicine man to another. The medicine man indeed takes into account the natural, physical as well as the social environments while prescribing an antidote to an ailment. The prescribed antidote is not always administered into the body of the patient but also to the environment both man made or natural in which the patient lives in.

Curing practices

The curing practices of the Didayi Medicine men are of two types. The traditional Medicine men go for spiritual medicines namely dancing and gyrating before the patient while uttering hymns addressed to malevolent deities. By doing so they try to build will power and infuse the same into minds of the patients. This psychotherapy at times yields amazing results.

In case of seasonal diseases, the Medicine men either the psychopaths or the material medicine specialists, attribute the diseases to the unseen forces but give medicines derived from herbs, plants, abiotic foreign objects and parts and parcels of animal species. In case of accidents they prepare medicines and give the same to the patient for application but claim to ward off the evil eye which might fall the evil eye which might fall on the open wound covertly at home.

In case of diseases whose causes cannot be traced out, the medicine man creates a belief that some foreign body or a charmed object, might be embedded in the body and is growing in size causing pain. For this also they administer the medicine following certain rituals. It is observed that in most of the cases the patients do not recover and find their way to the nearby health centers.

Taboos and restrictions

The food and other restrictions laid down by the Didayi Medicine men are not always supplemented by the social sanctions. As a result, the taboos / prohibitions related to the medicine are very few in number. The methods of administration of medicine are either external through massage, annointation and simply intimate contact with the body or internal intake through inhalation or oral administration.

Didayi medicine man is more knowledgeable than his Bonda counterpart regarding the effect of food on the digestive and the general body systems of the patient, his prescriptions also recommend consumption of certain food items and prohibition of some others. Generally fibrous and hot foods are not given to the patients suffering from stomach pain. Similarly, sago-palm juice, stale rice water and fruits, like banana, custard apple are not given to patients suffering from fever, cold etc. It is strange to note that stale meat, dry-fish and the likes are not restricted to the patients suffering from intestinal disorders and the old people with poor digestive power. In case of diseases, like jaundice, small pox, cholera and ailment in respiratory track as well as pain in joints, the prescriptions given are of supernatural type.

The so called 'faith healing' consisting of consumption of raw medicines usually prepared from different parts of a plant either singly or in combination, anointment of oil is followed by chanting of sacred words addressed to the Gods, Goddesses or the spirits. It also advocates, for offerings to benevolent or malevolent forces. A Didayi patient is never prescribed with preventive as well as 'after care' medicines.

Ref.: Ota, A.B. & Mohanty, S.C. (Ed): Particularly Vulnerable Tribal Groups (PTGs) of Odisha, Volume III, (Biology, Health & Ethno-Medicine), Scheduled Castes & Scheduled Tribes Research and Training Institute (SCSTRTI), Bhubaneswar.

Kandha Traditional Medical Practices

Concept of diseases

Tribal concept of disease and treatment, life and death is as varied as their culture. Accordingly, the tribal society is guided by their traditions and customs to which every member of the society is expected to conform. The fate of individual and the community at large depends on their relationship with unseen forces which interfere with human affairs. If men offend them, the mystical power punishes them by sickness, death or other natural calamities.

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

The belief system

The Dongrias believe that diseases are caused by the evil spirits. They become angry and do harm if one has not propitiated them properly. Thus, to a Dongria mind, the real enemies of human health and prosperity are the angry Gods and the evil spirits. The usual theory of disease in the Dongria society is that it is caused by the breach of some taboo or by the anger of hostile spirits and ghost of the dead. Sickness is the routine punishment for every lapse and crime done by them. Accordingly, they have taboos and prayers.

Invoking the blessing of Gods and propitiating the evil spirits are necessary to have a smooth and healthy life. The Jani or the village priest in addition to his religious functions acts as mediator between the people and the mystical power. He prays and worships offering sacrificial animal, alcoholic drink and blood of sacrificial animals. By these he tries to maintain a good relationship between the people on the one hand and the mystical power people on the other, which intervene human affairs. Thus magico-religious treatments of diseases caused by supernatural and human agencies are resorted to by the Dongrias.

The Kandhas consider that the treatment of patients is specific to age, sex and nature of the ailment. Belief system of the Kandha is an organized body of ideas, attitudes and convictions centered on values and are considered as organic part of life

Medicine men

When illness continues for a long period, the Dongrias consult a 'Beju' or 'Bejuni' who performs the ritual, a process of diagnosis named as 'Puchuna'. The 'Beju' or 'Bejuni' who calls puchuna passes into a state of trance, calls all the Gods, spells automatic flow of mantras and is enlightened by the one, responsible for causing the illness and the kind of animal that must be sacrificed.

Verrier Elwin described the diviner priest of the Saora tribe which applies equally to other tribes of this study. He has the power not only to diagnose the source of the trouble of disease, but also to cure it. He is a doctor, as well as a priest, psychologist as well as

magician, the respiratory of tradition, the source of sacred knowledge. His primary duty is that of divination, he seeks the cause in trance and dream. (k)

The medicine men have carved out a niche for themselves in a tribal society. They are respected, consulted for any abnormalities observed in the inner body as well as the outer environment that influence the condition of human body. If the son of a medicine man has no knowledge of medicine, he cannot become a medicine man on hereditary basis.

The folk medicines of the Dongrias are practiced by their traditional Medicine men called 'Disari' and magico-religious healers i.e., the shamans called 'Beju'. "Dishari" practices herbal medicine. They are the persons who only practice medicine and there are also persons who combine the work of shaman and medicine man. The female shamanins (Bejunis) do not come under this category as they only conduct preventive and curative rituals for treatment of diseases and other problems but do not prescribe medicines like the Bejus do. According to Trask (1964; 4-5), every medicine man is a healer, but the shaman employs a method that is his and his alone.

The beju and bejuni can come from any clan. The remuneration for their services is not fixed. They are paid in cash or kinds comprising a small amount of money, rice, meat or head of the sacrificed animals and alcoholic drinks. They do not demand anything and are satisfied with whatever their clients offer them. Moreover, their jurisdiction is not confined to any particular village. They can render services anywhere when called upon to do so.

Medicines: prescription and administration

The medicine man is the only person who is supposed to collect the medicinal plants and prepare medicine out of them. He is specially equipped with the knowledge of diseases and medicines required. The medicines are not preserved as they believe that fresh collected plants are more effective than dried ones.

The Kandha worship the goddess to cure measles, chicken pox and a few other diseases. They also sacrifice animals and offer liquor to their deities for curing certain diseases and increasing the fertility of the soil. A good number of plant species are also worshipped for various reasons. In their sacred places the Kandhas plan some useful shrubs and trees. (k) They use such plants and shrubs for various diseases like fever, cold, snakebite, stomach ache, snake bite etc.

The Kandha medicines are simple and never have complex formulations. It is prepared by pressing, grinding, decanting, incinerating and filtering of medicinal ingredient. Most of the medicines are water based and some of the medicines used externally are oil based.

The traditional medicine men administer the medicine in two ways. They transmit invisible medicine by uttering words addressed to unseen forces or by body gyration or by administering physical medicine by external application or internal assimilation. The physical medicines applied externally are strong and have repetitive use. These medicines are made to assimilate with the body through massage, annointation and through pressure adhering. Before the administration of the medicines, the body condition, body weight and the time of the occurrence of the disease is also considered.

Methods of diagnosis and prescriptions

The health of the Kandha people has been invariably connected with socio-cultural and magico-religious practices since ancient times. They have developed indigenous ways of healing practices to protect their health against various kinds of diseases. The Kandha indigenous medicine is diagnostic but not systemized and is not confined to only one concept i.e. healing the patients from his maladies. For this they use simple medicines derived out of different parts of the plant.

So far as the diagnostic and curative are concerned the roles, functions and modus operandi of the Beju and Bejuni differ. People accept the Beju as a physician and a practitioner of herbal medicines. In this case, Bejuni is rather a witch doctor as well as a mental therapist. Patients come to her, when the traditional medicine fails, and involvement of supernatural agencies is suspected. Then it becomes the responsibility of the Bejuni to detect the troublesome spirit or deity and prescribe and also conduct appropriate remedial rituals.

Curing practices

The curing practiced differ from Dissari to Beju till Bejuni. They all have unique approach to curing diseases. The Kanda shaman are no exceptions while the Bejus have nothing very spectacular except wearing of red beads and semi red beads, vermillion marks on their foreheads and some heavy ornaments. They wear a chain of bells around their ankles, which jingles when they dance in trance. They hold a bunch of peacock feathers by waving which, they drive out evil spirits.

During the process they use vermillion and incense sticks. Bejus and Bejunis touch the offering items to the patients. They also promise offerings like black buck, black cock and coconuts to the malevolent spirits on behalf of the patients and ask for their mercy in order to cure the ill patients.

Taboos and restrictions on diet and behaviour

The DongriaKandha follow few taboos and restrictions on their diet and behaviour. The taboos in circulation among the Bonda are non-administration of medicines before spiritual submission of medicine man. Before collecting the medicines from the natural surroundings, the medicine man purifies his soul by chanting the names of the village deities and spirits residing in their abodes, like, hills, forests, streams etc. There is no taboo relating to consumption of food and human action.

With the introduction of allopathic medicines, the importance of some herbal medicines is declining slowly. Gradually with development and modernization as well as availability of the medical facilities, they are entering into the system of modern health care. Of course, in the last stage of diseases, when their traditional herbal and magico-religious treatment fails, they go to the hospital at Bissam-Cuttack for allopathic treatment. Yet they still have faith on their age-old traditional system of ethno-medicine which is easily affordable and accessible as well as culturally acceptable to them than the modern medicine that is not culturally and easily accessible affordable and acceptable.

Ref.: Ota, A.B. & Mohanty, S.C. (Ed): Particularly Vulnerable Tribal Groups (PTGs) of Odisha, Volume III, (Biology, Health & Ethno-Medicine), Scheduled Castes & Scheduled Tribes Research and Training Institute (SCSTRTI), Bhubaneswar.

Juang Traditional Medical Practices

Concept of diseases

The Juang believe that injury and diseases are often due to witchcraft. They believe the power of Rau-uria, who is their doctor, psychiatrist, faith healers and the prophet. Among the most primitive tribes of Orissa, there is the belief that disease is caused by hostile spirits, the ghosts of the dead or due to the violation of some taboos. Thus, diseases are believed to be spiritually caused and should therefore be treated spiritually according to a traditionally recognized system of diagnosis and cure. They have their own doctors, well versed with the traditional knowledge of treatment. Much of their time and resources are directed towards attainment and maintenance of the spiritual power.

The belief system

In the realm of treating physical ills, the *Juangs* estill living in the age of magic with its practitioners and the agents. In their belief system, causes of diseases and premature death are attributed mainly to malevolent deities, evil spirits, ghosts and malice of sorcerers. The *Juangs* a pantheon of their own which consists of two high gods, benevolent in nature and a number of demi-gods with specific functions presiding over field, forest and village and innumerable spirits residing in the tree and sky. But this is not all. Their unseen world is still further populated by named and unnamed ghosts of the dead and evil spirits. A statement given below shows the diseases brought by different unseen agents.

There are also black magicians among them who by their magical performances can also cause various kinds of trouble such as stomach trouble, fever and trouble in the normal course of urination and defecation for the targeted persons.

Medicine men

The medicine man of the Juang community is known by names like Rau-uria, the shamam named as Gunia and the priest named as Dehuri. Whenever a shaman is called upon to attend a patient, his first duty is to diagnose the source of the trouble or disease and to prescribe appropriate treatment to cure the aliment. In case of diseases caused by the evil spirit or malevolent deity, the shaman performs the exorcism by conducting a worship.

In case of epidemics like smallpox, cholera or cattle diseases, a priest from the Sabar community is invited to perform Majana and Jantal ceremonies for eradication of the diseases. The priest performs a Puja to BurhideiThakurani (the chief village deity) and Mangala (the goddess of epidemics). The shaman acting as a folk chemist and druggist in the community can prescribe for the preparation of medicines possessing curative and restorative power, if collected at a definite time. A shaman also possesses preventive or defensive magical knowledge to protect against the accidental harm by the supernatural or by the evil magic.

Medicines: Prescription and Administration

Other means of warding off some disease is the herbal medicine with magical power, when brought at a particular time of a particular day after making oblations properly to the plant by the shaman. A few examples are cited below.

- (i) As remedy for a parturient woman, who is lacking lactation, the shaman brings seven leaves of Gopikana plant on a Saturday evening after worshipping it with arua rice and milk. These leaves are kept under the bed of the mother and the baby to help lactation.
- (ii) A Banyan tree and Tulasi plant are worshipped and seven leaves from each of these trees are obtained. To this is added seven black peppers and these are powdered. When a woman who has been made abnormal by sorcery, is given this powder to eat, she returns to normal condition.

The preventive measures consist of wearing the charms and amulets prepared and sold by the shamans. Certain vegetable roots, animal bone or part of animal's body are worn as amulets to protect from evil eye and the evil attention of the mischievous spirits. Thus, in their belief system diseases are regarded as the work of the gods, ghost and sorcerers; and they should be treated by spiritual means alone. But in practice they use modern medicine and go to hospital only after their traditional treatments, through the shaman fails. Slowly they are losing their faith in the supernatural treatment in certain cases and coming to the fold of modern medicines.

Methods of diagnosis and prescriptions

Before proper treatment is undertaken, correct diagnosis of the diseases is essential. Whenever a shaman is called upon to attend a patient, his first duty is to diagnose the source of the trouble or disease and to prescribe appropriate treatment to cure the aliment. For the diagnosis, what is known as Chaulkhoja or Chhanakhoja (examining the rice or examining the reeds), any male relative of the patient brings a handful of rice and two reeds of wild grass which the patient is made to touch. The shaman first enquires about the symptoms of the diseases and also the places which the patient had visited last. Then he takes the rice and reeds. He places two balls of rice on the ground and cuts the reeds at a length of fifteen digits. In the name of a spirits he chants the spells and then measures the reeds. If the reeds exceed the previous measurement, the spirits in whose name the magical spell was chanted, is detected to be the cause. Like this he goes till he finds out the source of the trouble and prescribes the appropriate treatment.

Curing practices

The indigenous method of treatment of the diseases among the Juangs can be broadly divided into two categories, namely (1) magical cure and (2) medicinal cure. If a mischievous spirits or agent is found to be responsible for the disease or trouble, the magical treatment is first applied. When it fails, treatment by medicinal herbs is made. The magical treatment is conducted by the shaman (Gunia) or the priest (Dehuri).

The Rau-uria is supposed to discover the cause of any calamity to individual and the community. He does this by the usual methods of winnowing fan, the gourd, the measuring sticks. To protect a child from lightning a ring from the country shoe is put on its finger.

Taboos and restrictions on diet and behaviour

Like other tribes, Juang people also follow some restrictions on diet and behaviour for the efficient working of the treatment. They never start diagnosis or any treatment without properly worshiping the Gods and Goddesses for mercy and help. They generally tend to magico religious practices and believe that they will remain disease free and healthy by propitiating the deities.

In their belief system diseases are regarded as the work of Gods, ghosts and sorcerers, and they use modern medicine and go to hospital only after their traditional treatments, through the shaman fails. Slowly, they are losing their faith in the supernatural treatment in certain cases and coming to the fold of modern medicines.

Ref.: Ota, A.B. & Mohanty, S.C. (Ed): Particularly Vulnerable Tribal Groups (PTGs) of Odisha, Volume III, (Biology, Health & Ethno-Medicine), Scheduled Castes & Scheduled Tribes Research and Training Institute (SCSTRTI), Bhubaneswar.

Saora Traditional Medical Practices

Concept of diseases

Like any other tribe the Saora measures health or ill health of a person in terms of food intake and work output. They almost equate health with happiness and disease / ailment with a goony and sorrow. To them health is a boon and ill health (disease / ailment) a bane of nature consisting of outer physical environment as well as the unseen environment comprising of deities, spirits, evil forces etc. However, at present they are buying the idea that man-made environment (accumulation of silage water, farm yard and cattle shed refuse etc.) is one of the causes of the disease. They are yet to reason out that diseases occur and spread due to harmful bacteria, microbes and germs.

The belief system

The Saora classifies ailments / diseases according to the time period of suffering. Almost all short duration ailments are clubbed together as 'Natural' diseases and longer duration ailments as 'Supernatural' diseases. They do not consider a person impaired temporarily by wound, muscle cramp, allergy, joint pain, cough, joint inflammation and even bone fracture a patient. The modern classification of disease namely, a) Natural, b) Supernatural, c) Interpersonal and d) Emotional (Press, 1982:185) is partly supported by the Saora belief system (existing of first two types of diseases). Their thought process also agrees that disease is a disorder in body and is less somatic rather than a 'disorder in organism and may either be somatic or psychic' (Deb Burman, 1986: 185). Unlike the Santal, the Saora rarely come into the term that the action of sorcerer on some part of the body and some objects once connected with the body of a person is one of the causes of diseases' (River 1924: 5-18). They believe that sorcerers are in possession of super natural power that counters evil powers but

not the evildoers. They also believe that the sorcerers of their community never indulge in black magic. They rather help warding off the evil powers.

Medicine men

The traditional Saora medical provider is known as Kudan or Kudanboi. The former stands for a male shaman while the latter is his female counter part. They are respected and revered. The so-called secular medicine man is respected for their position in the society. Usually a Saora medicine man treats patients belonging to his community. As every Saora village has a Kudan or Kudanboi a patient does not venture outside for treatment. The skepticism prevailing among the members of other communities, about the efficacy of the Saora folk medicine and its providers, prevents the Saora medicine man to handle cases of the non-Saora patients. It is strange to find that the Kudan or the Kudanboi express their inability to handle patients suffering from 'diseases of white man' (modern diseases like AIDs, restlessness due to stress and strain, cancer, silicosis, obesity etc). Some ailments like malnutrition, loss of appetite; diabetics etc. are never treated by Saora medicine men successfully. Their medicines meant for treating snakebite is not always successful. They have amazing ability of curing the pediatric as well as female patients with gynecological problems.

Medicines: prescription and administration

Saora medicine is indigenous in character and is classified under the sub section of 'Folk Medicine' in the domain of 'Traditional Medicine' as distinguished from the Modern Medicine (Mohanti-1996: V). It can also be termed as 'Oral Traditional Medicine'. The medicines in general, are water based and are very simple in terms of ingredients used, methods of preparation as well as their administration to the patients. The ingredients (mendicants) are handpicked by the providers (secular or traditional) from locally available bio-sources like plants and animals. Some of the abiotic ingredients like water, soil, pebbles are used for preparation of simple or complex medicines. In such medicines water is used as a base. Saora never use oil, fat and even honey as base material while preparing complex medicines.

Usually secular medicine is administered internally or externally to mitigate diseases. The secular medicine man (Gamanga-the village head man or Buye-the village priest) prepares the simple medicines while the traditional medicine man (Kudan or Kudanboi) collects, prepares and administer simple or complex medicines following some rituals (Annexure-II). Being water based the Saora medicines do not have longer 'life spans'. For these reasons, several batches of the same medicine are prepared frequently for its continuous use. Simple mechanical means like pounding, threshing, grinding, whipping, squeezing is used for preparation of medicine. As the Saora utterly lacks the sense of pre-cleaning of ingredients and the apparatus / tools, the prepared medicines get contaminated.

The methods of administration of medicine to the patient are equally important as the medicine itself. Some of the medicines are used as the surface applicants against superficial diseases like sprain, itch, allergy, minor wounds etc. and some are taken internally through digestive and respiratory tracks as well as through other body openings like ear or nose.

Saoras use vegetable oils (derived from the seeds of Nimba, Karanja, Mustard, Coconut, Mahula etc. as well animal fat externally to contain 'deep rooted' diseases like chest congestion, spleen inflammation etc.

Methods of diagnosis and prescriptions

The Saoras usually believe that the diseases are caused to the wrath of the Gods and Goddesses, evil spirits, black magic, witch craft, sorcery, evil eye and breach of taboos etc. The traditional healers have a deep knowledge of health care system. People trust them as capable of providing quality health to their community.

In an attempt to go on a mission into the unseen world, the shaman, in trance, with his eyes half closed and fists clenched tries to establish a direct link with the God or spirit who is responsible for causing the misery. When finally, the shaman is shaken with convulsions, it means that the god responsible for causing the illness has revealed himself. The god then makes his wishes known using the shaman as his medium. The animals demanded are the brought and sacrificed and other offerings made.

During the treatment of illness, in most cases a single pair of sacrifices is not enough to satisfy the ravenous appetites of the gods and ancestors. As the illness takes its natural course and fever intensifies, the shaman is called again and there are further sacrifices of animals which are costlier than those sacrificed in the first instance.

Curing practices

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

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

Taboos and restrictions on diet and behaviour

The traditional Saora medicine men attach a string of food restrictions to their patients. Some of the food restrictions agree with the modern therapy while some others are not to the tune of the diseases that asked for special nutritional supplements consisting of animal as well as vegetable proteins. In case of a TB patient the animal protein is withdrawn. Pregnant women are advised to take little food with almost no protein content. Similarly, they are forbidden to take food rich in Calcium. A person with the fractured bone is advised not to take animal protein but vegetable proteins like legumes, lentils and pulses. According to the traditional Saora medicine man the 'live food' like meat, fish, egg and milk has capability of producing blood in the body. The production of more blood results draining it out by vomiting. It is the reason behind withdrawing animal protein from the menu of a TB patient. In fact, the Saoramateria-medica does not have any effective antidote against cure of TB. Similarly, consumption of food rich in protein and calcium results in the formation of

bigger baby in the womb, which in turn gives unbearable pain at the time of delivering the child. This advice badly affects the health of the pregnant mother and the baby in her womb.

Ref.: Ota, A.B. & Mohanty, S.C. (Ed): Particularly Vulnerable Tribal Groups (PTGs) of Odisha, Volume III, (Biology, Health & Ethno-Medicine), Scheduled Castes & Scheduled Tribes Research and Training Institute (SCSTRTI), Bhubaneswar.

DATA INTERPRETATION AND DISCUSSION

In the Compendium preparation process based on secondary sources, a huge body of information on Tribal Medicine could be compiled that has been placed as Annexure of this report. In the process all possible sources of information were consulted. Along with the presentation of data on tribal medicine, the scholarly works in published literature have also provided interpretations on their data. Based on the literature consulted, the tribal medicine used by the various tribes in Odisha the following generalization of observations can be made.

Ethnomedicinal practices of tribes under coverage

As explored from secondary sources it is observed that most of the studies conducted by scholars have laid larger emphasis on certain well-known tribal communities. They include Kandha, Saora, Munda, Bonda, Didayi, Paraja, Hill Kharia and some others. Very less studies have been conducted on other tribes covered under the compendium process. Thus, in the compendium certain tribes are well represented while there is apparently inadequate information on certain communities. The well-known tribes on which very little information is available includes Oraon, Mankirdia, Gond, Bhunjia, Kisan, Santal and Koya.

Medicine practitioners, disease and medicine

The tribal societies have specialised people who are dignified for their knowledge on medicinal plants and hence are considered authorities of drug administration in their society. Such specialized people are the tribal medicine men, priests, shamans, wizards, etc., on whom the people of the community have great faith. Their hidden power of curing various ailments through various magical practices and through herbal drug administration constitutes the traditional healthcare system and welfare activities.

Disease, for the tribal communities studied here, is a cause of many factors. To approach a disease for its cure there are certain theoretical, conceptual and methodical processes which are part of indigenous cultures. Diseases are manifestations of peoples' interaction with their environment. In their ideas, diseases may be spiritual, natural and social. As far as their understanding of a disease goes, the final manifestations are a product of interactions of the above factors. This makes sense that sometimes disease is a cause of single factor and sometimes it is the product of a combination of factors.

Spiritual disease is a cause of the evil effect of supernatural powers. If those powers are not properly appeased by religious processes and maintenance of religious restrains then such powers inflict diseases in human beings, and the domestic animals are also not spared. A number of deities are believed to be associated with diseases and ailments.

Natural diseases are in a sense influenced by the environmental factors. These diseases are possible to be systematically diagnosed from the symptoms on which a medical prescription

can be made. This also includes the socio-economic factors that influence certain diseases and abnormalities which may be environmental, occupational, and nutritional in origin.

In general, the tribal understanding and concept of diseases is based upon the above factors. Amongst all the types, the spiritual diseases, which are also in one sense psychological, are considered to be the dreaded ones. For, people depend upon the benevolent will of specific spirits and deities, to be cured. All the tribes taken for the observation here consider certain diseases like the pox diseases, epilepsy, hysteria, abortion, premature death, leprosy and bodily manifestations as the dreaded ones, for their medicine men fail to exactly identify the cause of these diseases.

There are two kinds of traditional medicines; little traditional or folk medicine and great traditional. The herbal medicine falls under both the categories. However, the difference is that in the great traditional medicine the dosage is properly quantified and the administration is based on proper diagnosis of symptoms, cause and effects and is universal in application and acceptance. In contrast, the little traditional medicine are mainly the types of folk medicines, the dosage often not properly quantified and is parochial in practice. The tribal practice of medicine falls under the folk medicine category. The range of herbal medicine is too vast. But the practice which is inadequate do not necessarily mean that the people show poor response to herbal medicines, rather as a matter of fact, common people also know some of the herbal medicines for minor ailments.

From the core of the forest wealth great number of plants and trees are identified as medicinal plants by the tribal people. They use plants in their indigenous way. During compilation of information availed from secondary sources it was found that there are a certain number of plants which are commonly known and being used by all the three tribes taken for the study irrespective of the differences in geographical and socio-cultural settings.

Another point of discussion accrues in this connection is the use of medicinal plants that are connected with magico-religious beliefs and applications. The taboos and restrictions associated with the use of these plants are strictly adhered to resulting in their preservation. The magico-religious beliefs about plants have captured their ethos, sentiments and psychologically they accept that plants and trees as medicine have a better efficacy if used followed by some magico-religious practice or performance. They thus believe that, not only a great number of ailments are cured by use of plants and trees but also plants and trees pave them the way for better living, possession of material wealth and to be always in a state of well-being.

Disease profile

Commonly occurring diseases: From the study of available secondary sources, it is observed that the tribal people use plant-based medicines for many diseases of natural and environmental origin. The diseases or sickness or ailments includes asthma, cough and cold, cuts, wounds, diabetes, diarrhoea, dysentery, dog bite, injuries, indigestion, eczema, skin diseases, fever, fracture, gastritis, headache, infection, joint pain, toothache, urination related problems, vomiting, worm, and many others. Treatment is also there to effect conception and contraception and other gynaecological problems mainly the menstrual problems. As

such, there are many women and child related diseases most of which are treated through traditional medicine.

Some of the diseases that have been identified with their medical terminology includes hepatomegaly, hydrocele, hernia, etc. that apart, there are also treatments for kidney related problems, mental illness, small pox, chicken pox, spleen diseases, neurological disorders, cardiac problems as reported by many scholars who have studied tribal traditional medicines.

Seasonal variation in diseases: There is a clear seasonal variation of diseases. While some of them occur in particular seasons, some are there that occur through-out the year. Amongst the diseases as stated above, cough and cold and related sicknesses generally occur in the rainy and winter seasons while asthma and other respiratory diseases mainly occur in winter and summer seasons. The diarrhoea, dysentery and other gastro-intestinal diseases mainly occur in the rainy season. The distribution of diseases across the seasons also depends upon the food pattern, environment and social behaviour of the tribal communities.

Fever, especially malaria occur throughout the year. Out of the many kinds of fever occurring to the tribal people, malaria is most common followed by fever related to cold. The cold fever is mainly reported in the rainy season and is related to work habits.

Traditional Medicines

Usually plant-based medicines are used for treatment of different kinds of sicknesses and ailments. The most common plants utilized for treating various diseases includes Tulsi (Ocimum sanctum), Satavari (Asparagus recemosus). Patalgaruda(Rouwolfiaserpentina), Bahada(Terminalia belirica), Kusum (Schleicheraoleosa), Apamaranga(*Achyranthes* aspera), Ashwagandha (Withaniasomnifera), Baidanka(Mucunapruriens), Bisalyakarani(*Tridaxprocumbens*), Dudura(Datura metel), Kaincha(Abrusprecatorius), Haladi(Curcuma longa), Harida(Terminalia chebula), Jada (Ricinus communis), Lajkulilata(Mimosa pudica), Mahula(Madhukalongifolia), Nimba(Azadirachtaindica), Amba (Mangiferaindica), Bhringaraj(*Eclipta* alba), Dimiri(Ficusglomerata), Guluchi(Tinosporacordifolia), Kendu(Diospyros melanoxylon) and many others that are knwn only by local names.

There is a long list of plants known with local tribal names that are not botanically identified or relevant vernacular names like Odia names have not been mentioned. It may be noted here that the scholars who have studied the tribal ethnomedicine are from different backgrounds and all may not be botanists. From an observation on the methodology followed by various scholars it is evident that only the botanists have been able to identify the plant names on spot or have got them identified botanically by using herbarea methods. However, other scholars who have studied this aspect of the tribal communities have mentioned the plant names by tribal name and or local names. The local names, however, open up the space for further enquiries to properly identify the plants.

Amongst various plants used for treatment of diseases and sicknesses it is evident that roots of plants are mostly used followed by leaves. There are combinations like roots and leaves, root and bark, bark and leaves, leaves and buds, fruits and seeds, rhizomes and stem, flowers and leaves, etc. The whole plant is used in many cases where the plant is herbaceous and seasonal. An observation on the plant medicines used it is clear that there are seasonal variations of the availability of plants. However, the seasonality aspects of availability of plants has hardly been described properly in the secondary sources consulted for preparation of this compendium.

There are also certain formulations like pastes, decoctions, powders, crushes and such other things that are prescribed as medicines. However, the data provides that most of the medicines are taken in raw form after directly collecting from the field. The leaves are generally administered in very raw form or after grating them mixing some other ingredients with it. The roots are taken in grated form. In very few cases decoctions are prepared and administered. For local application different types of pastes are prepared and locally applied. Most of the raw drugs are orally taken.

There are many diseases believed to be supernatural in origin. To treat such diseases usually the medicine men, follow certain magico-religious processes. The treatment method following magico-religious processes abide by certain rituals and often sacrifices are executed. As such, there are many plants and trees that are used in magico-religious treatment practices. A list of such plants and trees relating to Hill Kharia, KutiaKandha and LanjiaSaora has been presented hereunder as gathered from the doctoral dissertation of Jena (1996).

Plants and Trees in Magico-religious practices

It was tried to understand what is the contribution of magic and religion for selection of plants and trees from the wealth of vegetation available in the forest? Certain plants are considered to be more effective in terms of their medicinal properties when utilized in magico-religious way. In a way, such instances have opened up the understanding that there are also considerations of astrological herbalism in tribal tradition of ethnomedicine.

After a thorough insight into the culture and tradition of the tribal people, it is felt that this knowledge and method of utilisation of plants and trees in a magico-religious way is not always their original tradition, rather some traditions have been borrowed from Hindu traditions. Over a long period of time Hindu traditions have been adapted in bits and pieces. It is observed in the religious practice of all the three tribes that there is inclusion of the non-tribal material culture in the offerings they make to gods and goddesses. With passage of time such practices have automatically become a part of the tribal culture.

The forest dwelling non-tribals have with them palm leaf inscriptions of very ancient times. In these texts' plants and trees with their medicinal properties and magico-religious beliefs have been recorded. Besides, there are *Tantric* beliefs also. The non-tribals supplement and complement the medicinal properties of the plants with the magico-religious beliefs associated with such plants. The use is always impelled with a desire for a quick curing

process, for self and family welfare, greed, possession of material wealth and the likes. Yet plants are in use to induce evil effects in individuals through the magico-religious practice.

Plants and trees associated with magico-religious beliefs are numerous. In this anthology only a small set of such plants and trees are discussed. Only those plants which are earlier mentioned in the medicinal plants section are enumerated here in relation to their involvement in magico-religious practices. This local knowledge is definitely of great importance to ethnobotany.

Abrusprecatorius:

Root of the plant with root of *Datura alba* and *Cynodondactylon* are pestled together. Gun barrels washed with the preparation ensures perfect shooting of target.

Achyranthes aspera:

- On a Monday or Tuesday, root of the plant is collected after due invitation to the plant. The root tied to the waist of a man with a red thread strengthens him to do sex for a longer period.
- If a pregnant woman suffers from severe labour pain, a plant is uprooted taking name of the woman breathlessly to facilitate easy delivery.
- Three pieces of roots about 1/2" long of the plant are worn at neck to cure cold fever.
- The root is collected at the time of lunar eclipse and tied to the arm of the children for their better health.

Aegle marmelos:

- A seed of the tree buried in a house spoils the business of the house holder.
- On a Sunday after taking bath with head wash, root of the tree is collected. It
 is tied at the right hand of male folks and at left hand of female folks for
 peace from evil planets.
- On the day of *pushya*star after bath in the morning, root of the tree, root of *Emblica officinalis*, root of *Celosia cristata*are collected and kept in a copper talisman. The talisman is worn at arm to avoid fear from tiger.
- Leaves of the tree and root of the *Manjusa* plant (*Rubiacordifolia*) pestled together. A drop of it put over anybody acts as a potion.
- Root of the tree tied with a thread to the arm of a man would enrich him with property. It has also hypnotising effect.

- On the day of the *Sravana*star with Sunday, root of the tree is collected. Those roots are mixed with fodder and fed to cows. This process increases milk in cows and mitigates all planetary troubles of cows.
- On any day root of the *Brahmadandi* (?), root of the *Celosia cristata* with root of this tree are collected. All the above roots are pestled with water. Such a paste if smeared on forehead and taken orally heals all sorts of diseases and mitigates bad planetary effects.
- Some leaves are pestled with cow milk, the paste is made into pills and dried under the Sun. At the time of need, the tablet is rubbed with water and smeared on forehead to hypnotise all.
- On any day leaves of the tree with leaves of *Azadirachtaindica* collected and thrown into burning fire, taking the name of a person whose destruction is effected by making him mad.
- On a Sunday with *Pusya*star, Bael root is pestled with water and smeared on foreheads of infants to drive away *Naigamesagraha*, a type of evil child planet, which causes epilepsy in children.

Alangiumchinense (Syn. Alangiumlamarckii)

- Root of the plant is collected on a Saturday and kept in a talisman. The talisman worn on the arm protects the person from all dangers, even a bullet.
- A piece of the root collected on a Sunday and buried in the brinjal (*Solanummelangina*) cultivated field ensures plentiful production.
- On the day of the *Sravana*star, root of the plant and a Bael(*Aegle marmelos*) stick is collected and fixed to the roof of an enemy to make him weak.
- People of Kharia and Bathudi tribes shake this tree taking name of an aboutto-deliver woman to facilitate easy and quick delivery.

Argemone mexicana:

The root is collected on a Sunday while facing east. If a lady collects it and
ties it to her neck then she would look very beautiful in her husband's
eyes and can procure his love.

Azadirachtaindica:

• On the *Pana Sankranti* day, about 10 gms. of leaves with equal quantity of lentil dal (*Lens esculenta*), pestled together and taken to ensure safety from snake bites for a year.

Blumealacera

• On a Sunday, leaf of the plant is pestled with water collected in the previous night. This is prescribed for children to stop bed wetting.

• Leaves + ginger + bark of *Moringa oleifera* pestled to make a paste. The paste is used to wash gun barrels to ensure perfect shooting.

Bombax ceiba (Syn.Bombax malabaricum):

- Roots of this plant are thought to be auspicious for the household members. Specially if collected from the eastern part of the plant, early on a Saturday morning before a wash, and buried under the door of the house.
- If the roots of this plant are collected on any Saturday morning during the months of Aug - Sept and buried under the paddy field, a high yield of paddy is ensured.

Calotropis procera

- Root of the plant worn on arm keeps spirits away.
- A piece of root collected from the northern corner of the plant is tied to the affected part of body to cure filaria.

Cannabis sativa:

 Leaves with turmeric (Curcuma longa) powder, leaves of Azadirachtaindica, snake scales, cat fur, goat horn, root of Acorus calamus, Allium sativa and Brassica campestris grains taken together and powdered. The powder is fired to ward off ghosts and spirits.

Cissampelospareira:

- A piece of root is collected on a Sunday after due invocation to god.
 Powder of the root is given to the man whom one wish to bring under his control.
- The slender stem is worn around the neck like a ring to cure fever that frequents every alternate day.

Clitoriaternatea:

- Leaf juice of the plant with leaves of Jayanti plant (Sesbaniasesban) taken together and inhaled to a new born. This ensures security of the child from ghosts and demons.
- Pestled root of the plant with sandal wood paste is smeared on the forehead to hypnotise all.

Cratevanurvala (Syn. Crateva religiosa)

 A piece of the root or root bark kept hidden in bed of a woman for three days entice her. If a husband hides it in his bed, then his relationship with his wife becomes solid and harmonious.

Curculigoorchioides:

• On the fifth, thirteenth or fourteenth day of a moon fortnight, root of the plant is collected with due invitation. This root if tied to the right arm of a man or the left arm of a woman, all adverse planetary effects are mitigated and good luck to the person is ensured.

Curcuma longa

• Raw turmeric kept in a human skull is fired to smoke. This attracts games towards the hunter in forest.

Datura metel

- Flowers collected on the day of *Pusya*star, fruit collected on one's *Zodiac* star day, branches collected on Bisakhastar dayand root collected on *Mula*starday. All these things pestled together with *Gorachana, Kumkum* andcamphor. The paste is smeared on the forehead to hypnotise all.
- The plant should be collected on a Sunday or Saturday and washed with water. This water is to a pregnant woman, to relieve her of labour pain.

Ecliptaalba:

 Flowering twigs of the plant are collected on the day of the *Pusya*star, dried and powdered. A spoonful taken with milk every morning prevents and cures asthma.

Erythrina indica or Erythrina suberosa:

• The plant is frequently worshiped during pregnancy in order to reduce labour pain.

Emblica officinalis:

- On the day of *Pusya*star, a piece of the root tied with 21 pieces of red threads and worn on arm to cure all sorts of fever.
- To mitigate misunderstanding and a long continuing conflict between husband and wife, a piece of the root is given to them to restore relationship.
- On a Saturday, after a bath, seven leaves are collected, pestled in palm and inhaled to small children to cure epilepsy.

Ficusbenghalensis:

• It is believed that a man remains free from the influence of evil spirits if he wears a piece of the root of a palm tree that is found between two *Cratevanurvala*trees.

Ficus religiosa:

• If this tree is worshipped every evening, it would protect the family from invasion of all sorts of evil spirits.

Hygrophilaauriculata:

A piece of the root with that of Abrusprecatorius and Clitoriaternatea are
collected on a Sunday after due invitation to the plant and kept in a
talisman. The talisman worn on the forehead during intercourse effects
contraception. Conception may happen if the talisman is removed.

Jasminum sambac:

 A piece of its root collected facing east and tied to the arm of a pregnant woman relieves her of labour pain and eases delivery. But the root should be immediately disposed of as otherwise, it is said, it may cause removal of the uterus.

Fleuryainterrupta:

 Root tied to left arm and root rubbed on hand after due worship of the root. This empowers a person to open any door without a key for thieving.

Feronia elephantum:

- It has a curative value for cattle diseases. The roots are collected on a Saturday or Sunday morning. A paste is made of the bark, leaves and root and applied to the horns of the cattle to keep them healthy.
- The roots are collected on Saturday or Sunday morning and kept inside cattle sheds. That would keep the cattle free from diseases.

Micheliachampaca:

 Root of the tree is collected on the day of solar or lunar eclipse. Paste of this root is applied on snake bite injury, eyes and tongue as antidote to snake venom.

Mimosa pudica:

- A piece of the root kept inside the mouth and another fixed to the waist is said to keep honey bees away.
- Leaves and root of the plant with root of *Sidarhombifolia* are pestled together. Barrel of guns washed with the paste ensures perfect shooting.
- It is believed that carrying the roots of this plant frees a man from snake bites.
- Roots of this plant collected on a Saturday or Sunday morning after a bath and then worn on childrens' neck protects them from fevers and diseases.

• On a Sunday morning if a woman collects and wears a piece of the root around her neck then it hypnotises her husband.

Mucunapruriens:

- A piece of root collected on a Sunday and tied to the arm cures term fever (*Palijara*).
- A piece of root collected any day and tied to the arm keeps a person safe from enemies and jungle denizens.
- A person wishing to avail effects of this plant does due invitation to the
 plant by offering incense sticks, vermillion and salutations on the first
 day. The next morning only, before taking a wash, the person must collect
 its root. This is then tied to the arm or kept hidden in the body as a
 security against ghosts and spirits.
- Various parts of the plant, including the flower, fruit, bark and root should be collected on a Saturday morning, dried and powdered. If applied on the forehead it ensures success and victory for the concerned person.

Ocimum sanctum:

 Dry leaves powdered and kept inside gun barrels along with bullets to ensure perfect firing.

Pergulariadaemia:

• Extract of its leaf juice is used to wash gun barrels to ensure perfect shooting.

Phyllanthus fraternus:

 A piece of the root of the herb equal to the width of eight fingers is collected and fixed to the roof of a fisherman's house. This deprives the poor fisherman of a good catch. Only when the root is disposed off, the fisherman can regain his good fishing luck.

Plumbago indica:

• Usually women feed a man mixing the flower of this plant, in strict confidence, to attract him. Most common practice among wives.

Rouwolfia serpentine:

• On the day of *Bisakha*star, root of the plant with that of *Bombaxceiba* pestled together and eaten to escape from snake bites. The plant collected on a Saturday or Sunday and kept in the house prevents entry of snakes.

Sidarhombifolia:

 A piece of root tied to right arm of men and left arm of women to cure fever.

Solanum surattense:

• It is a common belief that roots of the plant collected during a lunar eclipse and placed in the front and back of the house protects the household from evil spirits.

Streblus asper:

- A piece of this plant collected on a Saturday or Sunday morning and kept in the granery of the house protects the grains from pests.
- Wood paste of this plant is worn on forehead to achieve success and victory.

Tamarindusindica:

Raw root from a non-flowered virgin tree is collected and cleaned. It is
then tied to the hair of a pregnant woman for easy and quick delivery. A
piece of the root is also given to the woman to inhale. But immediately
after delivery the root should be promptly disposed off.

Terminalia arjuna:

- On a Sunday morning, bark of the tree is collected after worshipping the tree and offering a sacrifice of a cock. This bark mixed with root of Bael(Aegle marmelos) and root of Rauwolfia serpentinaare powdered. The powder taken twice a day cures rheumatism.
- Fruit of the tree is worn on arm to cure fever.

Terminalia chebula:

- The seed worn on arm with a red thread protects the person from being inflicted by smallpox.
- A necklace of the seed with thread on the neck also prevents smallpox infliction.

Tinosporacordifolia:

• Anecklace made out of pieces of the stem is believed to be a remedy against snake bites.

Trichosanthesbracteata:

• The root is collected with due invitation on any Sunday but only after serving the tree with milk and rice. The root thus collected is pestled with the urine of small children. The resulting paste is applied on the nipples of women to cure the sores on the breast and nipples.

- Its root is believed to have snake repellent power if collected during a lunar eclipse and then worn on the body. The paste of this plant when served to a snake bite victim is said to neutralise the snake venom.
- This plant collected on a Saturday or Sunday morning and worn bychildren cures all sorts of fevers and also protects from the evil effects of ghosts and spirits.

Vitex nigundo:

- Apiece of its root fixed to the roof of the house and a piece tied to the arm of a person wards off ghosts and mitigates his planetary ill-effects.
- Root of the plant kept in cattle sheds ensures good health of the cattle.

CONCLUSION

Use of traditional medicine has expanded globally and has gained popularity. It has not only continued to be used for primary health care of the poor in developing countries, but has also been used in countries where conventional medicine is predominant in the national health care system. Practices of traditional medicine vary greatly from country to country, and from region to region, as they are influenced by factors such as culture, history, personal attitudes and philosophy. In many cases, their theory and application are quite different from those of conventional medicine. Long historical use of many practices of traditional medicine, including experience passed on from generation to generation, has demonstrated the safety and efficacy of traditional medicine.

There are many reasons for the promotion of traditional medicine. Firstly, 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. Secondly, 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. Thirdly traditional medicine is one of the surest means to achieve' total health care coverage of the whole population using acceptable safe, economically feasible method (WHO, 1978).

Moreover, preparation of the compendium on traditional tribal medicine has been helpful in many ways to understand the gaps in studies in ethnomedicine on tribes of Odisha so far and on the other hand the treasure of information available in public domain in disaggregated form. Through this compendium preparation the studies and disaggregated data on ethnomedicine of tribes could be consolidated at one place. The compilation impress upon the fact that there are many tribes on whom very sporadic studies have been conducted and in the same manner there are certain tribes on whom many studies have been conducted. It could be because of convenience in taking up field studies or could be because there were connecting links for such studies through other studies. However, one thing is very clear that there has been no systematic study conducted on any tribe in a multidisciplinary perspective. The Botanists have attempted such studies following their methodology while the social scientists have studied the subject from their own perspective. Hence, the presentation and interpretation of data could not be homogenous. Further, taxonomical identification of the plant remained to the domain of botany and the social scientists have documented ethnomedicine ignoring the taxonomical identification of the plants. Thus, there appears many names starting from binomial nomenclature to vernacular and local names. Because of this the consolidation of disaggregated data and classifying the

data in accordance with the disease to medicine or medicine to disease, or tribe to medicine has been confronted with challenges and typical limitations.

The compendium thus prepared may be considered as a compilation so as to ascertain the quantum of information available on traditional tribal medicine in respect of different tribal communities of Odisha. While some of compiled information may qualify to be incorporated in the traditional knowledge digital library (TKDL) and other portals in public domain, there are many information that may need further verification and gap filling to bring them in proper order. As such, while there are many other platforms directly or indirectly working on medicinal plants such as Central Drug Research Institute (CDRI), National Bureau of Plant Genetic Resources (NBPGR), National Medicinal Plant Board (NMPB), State Biodiversity Board (SBB) and other academic and research institutes. This information may prove to be of relevance for further research on the subject.

As stated earlier, from the available literature it is evident that the subject of ethnomedicine or the traditional tribal medicine has not been studied systematically. The presentation of first- hand information has remained quite erratic as most of the literature are papers in academic journals and periodicals and hence have not followed a common framework and pattern. Considering the relevance of the subject in the present context it is important and suggestible that such studies may be taken up in systematic manner involving a multi-disciplinary team and collaboration of institutions with domain expertise so that comprehensive and systematic account of tribal traditional medicine can be documented. The steps must be taken early, as the knowledge of tribal traditional medicine is gradually fading away on the face of several factors; may it be modernization or increased access to other established systems of medicines.

Overall Observations

This compilation of tribal traditional medicines on the basis of available secondary sources has enlightened many aspects of the tribal culture and their association with the world of vegetation. On the basis of analysis and observations on the compilation the following recommendations are made.

- An action plan must be formulated and put into implementation for comprehensive documentation of tribal traditional medicine that would help enrich tribal life and knowledge by which the modern society could also benefit.
- In order to document the entirety of use of plants and of plants which are generally not used, a more in-depth study into their socio-cultural paradigm needs to be done before this knowledge is lost in time due to the fast encroaching modernisation.
- The tribal priests and medicinemen deserve to be provided with prominence and
 incentives to preserve and document their knowledge so that their future generations
 find an economic meaning in preserving and enriching this traditional knowledge.
- It would be worthwhile if the Government and Non-Government Agencies and Organizations operating in these areas convince the tribals to set up tribal resource groups and guide and encourage them to use their traditional, ethnobotanical and

ethnoecological knowledge to identify, preserve and propagate the useful and endangered species, to under-take indigenous plantations and herbal gardens. Care should be taken not to destroy the other-not-so-useful species to maintain the biodiversity balance. Proper economic incentives in the form of commercial utilisation of the produce of these plantations and gardens will ultimately make the process self-sustaining to everyone's benefit.

- Future policy and research projects could accord importance to the tribals' ethnic, ethical and emotional attachments with plant world and their philosophical interpretations embedded in their folk lores, oral lores, art forms, etc. This survey will yield unexpected results and open up new avenues of enriching life.
- The authorities should find methods of providing economic benefits to tribals to dissuade them away from shifting cultivation and other destructive practices. Tribal produces could be given a professional marketing outlet.
- The birth control methods of the tribal women could be scientifically studied for implementation in our family welfare programmes.

Apart from the above some special recommendations may be made towards betterment of the knowledge bearers in the tribal societies; especially the medicine men and other practitioners in their society. The major constraints faced by the knowledge bearers and knowledge providers as stated below requires due attention.

Major Constraints faced by the Tribal Medicine Men

1. Unsecured Livelihood

One of the major constraints faced by the tribal medicine men is that they are not able to get 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 considered 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 but they are expensive for making certain medicines but as people of their own communities are very poor, these are not able to sell much. 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.

2. 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 healthcare

practices is also discouraging the tribal medicine meant to adopt these practices as a profession.

3. 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 for a reduction in the number of tribal medicine men in the tribal areas.

4. 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.

5. Deforestation

The local forests and some religiously protected rather inviolate forests are treasure house of major medicinal plant resource 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 to the growth of healing practices of the tribal medicine men.

6. 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 purpose since they are not regarded as professionally qualified doctors.

Remedial Suggestions

In order to solve these problems successfully, following measures are suggested for their implementation.

• The plant based traditional medicines can be recognized and revitalized through awareness generation of the village communities and institutionalised capacity building of the tribal medicine men.

- The outreach of the traditional medicine should be emphasized with promotion of traditional technologies adopted in this regard.
- The demonstration, conservation and propagation of medicinal plant resources should be attempted immediately.
- The healthcare traditions of tribal medicine men must be maintained and restored to popularise the tradition 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.
- Workshops may be organized for sharing of the knowledge and values of plant-based remedies among the tribal medicine men of different localities.
- Advocacy measures may be taken for the practitioners for policy level changes to give them legal recognition.
- 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.
- Livelihood options should be encouraged through appropriate income generation sources through conservation, propagation and cultivation of medicinal plants.
- 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.
- They should be given recognition at the Panchayat level as health providers for the particular Panchayat.

BIBLIOGRAPHY

Acharya, D., Shrivastava, A., (2008): Indigenous Herbal Medicines: Tribal Formulations and Traditional Herbal Practices. Aavishkar Publishers Distributor, Jaipur / India

Acharya, B.C, Mishra R.K., Patnaik K.K. (1988). Ethnobotanical documentation and evaluation of herbal remedies. Cuttack: Institute of Oriental and Orissan Studies.

Ackerknecht, E. H., (1971): Medicine and Ethnology: Selected Essays. Baltimore: Johns Hopkins Press

Anilkumar, N. and Vedavalli, L. (1999) The ecosystem people and conservation of medicinal plants: a case study from the Siruvani hills, Tamilnadu - In Tribal folk medicinal plant resources of south Asia/Ed. by Radhika Johari and Madhav Karki Canada: IDRC.Beals, R.L., Hoijer, H., Beals, A.R., (1977): An introduction to Anthropology. Fifth Edition, New York: Macmillan Publishing Co. Inc.

Ayensu, S. E, (1983). A reader for health administrators and practitioners, in Bannerman, Burton, Chien Wen-chieh (Ed) Traditional medicine and health care coverage. Geneva: World Health Organization (WHO).

Bagchi, T. 1990: "Health Culture of the Mundas of Narayangarh, of Midnapur" in Man and Life, Voi. 16, No. 3-4, July-December

Bang, BC, 1973: "Current Concept of Small Pox, Goddess Sitala in Parts of West Bengal," in Man in India, Vol. 53, No. I, January – March

Bannerman, R.H. (1982). Traditional Medicine in modern health care. Presentation delivered at the 1882 World Health Forum 3, Geneva.

Basu, S.K (Ed). 1993: Tribal health in India, Manak publishers, New Delhi

Basu, S.& Mitra, N. 2001: "Health Development of Tribal Communities for India: Need for Action Research" in Indian Journal of Social Development. Vol. 1, June 2001, Serial Publications, Delhi.

Behura, N.K. 1991: "Anthropology of Disease Treatment and Cure" in Man and Life, Vol. 17, Nos. 1-2, January-June

Berlin, E.A., Berlin, B. (1996): Medical ethnobiology of the highland Maya of Chiapas, Mexico: the gastrointestinal diseases, Princeton University Press, Princeton, NJ.

Bhadra, R.K. 1997: Social Dimension of Health of Tea Plantation Workers in India, N.L. Publishers, Dibrugarh.

Bhasin, V. 1989: Ecology Culture and Change: Tribes of Sikkim Himalayas, Inter India Publications, Delhi.

Biswal, A.K., Rath, A., Patnaik, N., (1997): Tribal Culture and Ethnobotany (A Study of the Juang of Some Useful Plants). Adivasi, Vol. XXXVII. No.2.:20-32. Scheduled Castes and Scheduled Tribes Research and Training Institute, Bhubaneswar

Bodding, P.O. (1925a). Studies in Santal Medicine and Connected Folklore – 1. Santhal and disease. Asiatic Society, 10 (1).

Bodding, P.O. (1925b). Studies in Santal Medicine and Connected Folklore-2, Santal Medicine, Asiatic Society 10 (2), 133-426.

Brett, J.A., (1994): Medicinal plant selection criteria among the Tzeltal Maya of Highland Chiapas, Mexico. Ph.D. Dissertation, Department of Anthropology, University of California, San Francisco

Browner, C.H., Ortiz de Montellano, B., Rubel, A.J. (1988): A methodology for cross-cultural Ethno-medical research. Current Anthropology 29(5):681-689

Carstairs, GM. 1977: Medicine and Faith in Rural Rajasthan, in Mathur, HM (Ed.) Anthropology in Developing Process, Vikash Publishing House, New Delhi.

Carstairs, QM, 1983: Death of a Witch, Huchiston London

Chand, S. K., 1988. The Traditional Herbal System of Chotanagpur (mimeographed). Ranchi: Xavier Institute of Social Sciences.

Chaudhary, R. R. (1993). The quest for a herbal contraceptive - National Medical Journal of India, Vol. 6(5), pp. 199-201.

Clements, Forrest E., (1932): Primitive Concepts of Disease: A comparative analysis of the diffusion of cultural traits, Univ. of California Publications in American Archaeology and Ethnology. 32:185-252

Columbia, L.A.& Wenzel, E.R.R. 2000: Medicine Keepers:Issues in Indigenous Health, in Critical Public Health, Vol.10,No. 2, 243-356, (http://www.vph.sphcm.med.unsw.edu.an)

CSIR (1985): The Wealth of India: A Dictionary of Indian Raw Materials & Industrial Products. Vo.1, Part 1. Publications & Information Directorate, Council of Scientific & Industrial Research, India

Das, H.C., (2000). Man's Relationship with Forest – Deification of Trees and Plants, in Seeland, K. &Schmithusen, F. (Ed.) Man in the Forest, Man and Forest Series, Vol-1:215-248, D.K. Printworld, New Delhi

Das, J. (1993). Ecology & Techno - Economic Development of Forest Based People of Similipal Hills, Ph.D. Diss. Utkal University, Bhubaneswar, Orissa.

Dash, B & Dash, N.C., (2009): Kondhs: An Ethnobotanical Study, Amadeus Press, Bhubaneswar

Dash, J. and S. C. Pradhan, 2002. The Concept and Treatment of Diseases among the DongriaKondhs of Orissa. Tribal and Indigenous People of India. Ed. By R.N. Pati and J. Dash. New Delhi: APH Publishing Corporation.

Dastur, J.F., (1951): Aspects of Folklore, Folklore, Vol.6: 23-27

Duarah, O. K & Pathak, S.D. 1977. "A Short Note on the Health Care Practices Among Nishis of Arunachal Pradesh," in Health Care Studies in Anthropology, Das FA Kar, RK, Bull. Dept. of Anthropology, Vol. XXV, Dibrugarh University, Assam

Dunn, F.L. (1977). Traditional Asian Medicine and Cosmopolitan Medicine as Adaptive Systems, in Leslie (Ed), Asian Medical Systems, Barkeley, University of California Press.

Dube, S. C. Ed. (1977). Tribals heritage of India - Vol. I. New Delhi: Vikas Publishing.

Dutta, S. 2001: Health and Economic Status of Santals" in Tribal Research Bulletine, Tribal Research and Training Institute Maharasthra State Pune, Vol. XXXIV, March

Elwin, V. (1954). Tribal Myths of Orissa, Oxford University Press, London.

Elwin, V., (1965): Field Work in Tribal World, Folklore, Vol.6: 480-481

Encyclopaedia of Dravidian Tribes (1996) - Vol. I. Trivandrum: The International School of Dravidian Linguitics.

Evans-Pritchard, E.E., (1937): Witchcraft, oracles, and magic among the Azande, Clarendon Press, Oxford.

Fabrega, H., Silver, D., (1973): Illness and shamanistic curing in Zinacantan: an Ethnomedical analysis. University Press, Stanford

Fabrega, H., (1974): Disease and social behavior: an interdisciplinary perspective. Massachusetts Institute of Technology Press, Cambridge, MA: 39-43

Fabrega, H. Jr., (1977): The need for an Ethno-medical science, Science 189:969-975

Fabrega, H. Jr., (1977): The scope of Ethno-medical science, Culture, Medicine & Psychiatry 1:201-28

Fonning, A.R. 1987: Lepchas, My Vanishing Tribe, Sterling Publication, Pvt. Ltd. P.59-84. New Delhi

Fortune, R.F., (1932): Sorcerers of Dobu: the social anthropology of Dobu islanders of the western Pacific, George Routledge & Sons. London

Foster, G., (1976): Disease etiologies in non-western medical systems. American Anthropologist 78:773–82

Foster, G.M. & B.G. Anderson. (1978): Medical Anthropology, New York: Jon Wiley Intl. Publishers

Gelner, DN. 1994: Priests, Healers, Mediums and Witches: The Context of Possession, in Kathmandu Valley" Vol. 29, No. I, March, P 27-44.

Ghose, R.B., G.G. Maiti, P. Basu (1982-83). Role of Some Plants in Human Welfare, Adibasi, 22 (1-4), THRTI, Orissa

Ghosh, A.K. (2009): Ethnobiology: Therapeutics and Natural Resources, Daya Publishing House, Delhi

Gill, L. S., H. G. K. Nyawuame, E. I. Esezobor and I. S. Osagie, 1993., Nigerian Folk Medicine: Practices & Beliefs of Esan People. Ethonobotany. Vol. 5, pp.129-42.

Gorer, G. 1987: Lepchas of Sikkim, Cultural Publication House, Delhi

Grigson, S.W., (1938): The Maria Gonds of Bastar, Oxford

Guha, A. 1986: Folk Medicine of Boro-Kacharis; A Plain Tribes of Assam, in Chaudhury, B. (Ed), Tribal Health: Socio-Cultural Dimensions, Inter India Publications, New Delhi.

Gupta, S.P. 1986: Tribal Concept of Health, Disease and Remedy" Chaudhury, B. (Ed;), Tribal Health: Scio-Cultural Dimensions, Inter India Publications, New Delhi.

Graham, X. 1988: Sociological Aspect of Health and Illness. Faris Robert E.L. (Ed.) A Hand Book of Modern Sociology, Vol.l, P. 3131 Rand McNally, Chicago

Haines, H.H. (1921-1925). The Botany of Bihar and Orissa, Abelson & Co. London. Reprint Ed. (1961), Botanical Survey of India, Calcutta.

Hasan, K.A. 1967: The Cultural Frontiers of Health in Village India, Manaktala, Bombay

Hemlata, O. and P. K. Kumari 2004. Health Care Practices among Tribes of Manipur. Tribal Health and Medicines. Ed. By A. K. Kalla and P. C. Joshi. New Delhi: Concept Publishing Co.

Hitchcock, J.& Jones, RL. (Ed) 1976: Spirit Possession in Nepal Himalayas, Yikash Publishing House Ltd. Delhi

https://www.merriam-webster.com/dictionary/Ethno-medicine

http://petergiovannini.com/what-is-Ethno-medicine-definition-introduction-overview.html

Hughes, C.C., (1978): Medical care: Ethno-medicine (p 50-158) in Logon, M.H. and Hunt, E.E. (Eds) Health and the Human Condition: perspectives on Medical Anthropology, Belmont, CA, Wadsworth.

Hughes, C.C. 1968: Ethnomedicine. in Sills, DL. (Ed.), International Encyclopedia of Social Sciences, Macmillan

ISMH, Ministry of Health and Family Welfare: Ayurveda- Indian systems of Medicine and Homeopathy - http://indianmedicine.nic.in/html/plants/medmain.htm.

Jain, S.& Agarwal S. 2005: "Perception of Illness and Health Care Among Shills: A Case Study of Udaipur District in Southern Rajasthan", Department of Sociology, Univ. of Rajasthan, Jaipur, India, in Studies of Tribes and Tribals 3 (I) 15-19 · (http://www.krepublishers.com/02-journals).

Jain, S.K. (1963a). Observations on the Ethnobotany of the Tribals of Madhya Pradesh, Vanyajati, 11

Jain, S. K. (1963b). The Origin and Utility of Vernacular Plant Names, Proc. Nation. Acad. Sci. 33B

Jain, S. K. (1963c). Plants Used in Medicine by Tribals of Madhya Pradesh, Bull. Reg. Res. Lab. Jammu, 1

Jain, S. K. (1964). Wild Plant Foods of the Tribals of Bastar (Madhya Pradesh), Proc. Nation, Inst. Sci. 30B.

Jain, S. K. (1965a). On the Prospects of Some New or Less Common Medicinal Plant Resources, Ind. Med. Jnl. 59.

Jain, S.K. (1965b). Medicinal Plantlore of the Tribals of Bastar, Economic Botany, 19

Jain, S. K. (1967a). Plants in Indian Medicine and Folklore Associated with Healing of Bones, Ind. Jnl. Orthopaedics, 1

Jain, S.K. (1967b). Ethnobotany, its Scope and Study, Ind. Museum. Bull., 2

Jain, S. K. (1968). Medicinal Plants, National Book Trust of India, New Delhi.

Jain, S.K. (1971). Some Magico -religious Beliefs About Plants Among Adibasis of Orissa, Phulbani and Ganjam Districts, Adibasi, 12 (1-4) THRTI, Orissa.

Jain, S.K., D.K. Banerjee D.C. Pal (1973). Medicinal Plants Among Certain Adivasis in India, Bull. Bot. Surv. India, 15

Jain, S.K. & N. Dam. (1979). Some Ethnobotanical Notes from North eastern India, Econ. Bot.

Jain, S.K. (Ed.) (1981). Glimpses of Indian Ethnobotany, Oxford & IBH Publishing Co. New Delhi.

Jamir, N. S. 1997., Ethnobiology of Naga Tribe of Nagaland: I – Medicinal Herbs. Ethnobotany. Vol. 9, pp. 101-04.

Jena, M. K. (1993). Ethnobotanical Approach to Bael Tree, Aroma, BARC, Vol. 4, No. 4, Cuttack.

Jena, M. K., K.Seeland&K.K.Patnaik (1993). Ethnic Aspects of Indian Sago Palm (Caryotaurens L.) Adibasi, Vol. XXX III, No. 3&4, THRTI, Orissa.

Jena, M.K, (1995). Mangroves -A Plea for Conservation, Paper Presented in National Seminar on Mangroves and Environment, 10 & 11 June, The Universe, Cuttack.

Jena, M.K, &Pathi, P. (1995). Art, Architecture and Craft of KuttiaKondh Men, Paper Presented in Nat. Sem. on Kondh Art & Craft Objects, PanthaNivas, Bhubaneswar, Orissa. (8 & 9 Nov.)

Jena, M.K., (1996): A Study of Ethnobotany in Relation to Social and Cultural Life of Certain Selected Tribes of Orissa, Ph.D. Dissertation, Utkal University, Orissa

Jena, M.K., Seeland, K., Patnaik, K.K., (1997). Where Trees Do Matter for Society in Seeland, K, (Ed) "Nature is Culture," Intermediate Technology Development Publication, U.K., 79-89

Jena, M. K, (2000). Forests and Tribal Sacred Complex- A Comparison of Three Tribes of Orissa. In Seeland and Schmithusen (Ed), Man in the Forest, D.K.Printworld, New Delhi

Jena, M.K., Pathi, P., (2000): Rethinking Nature Conservation: cultural basis of forest and biodiversity conservation by the tribes of Orissa. in Mahapatra, S. (Ed) Rethinking of Indian Culture: Challenges and Responses, Institute of Oriental and OrissanStudies, The Universe, Cuttack, Orissa: 314-324

Jena, M.K., Pathi, P. and Acharya, U.S., 2000: Biodiversity and Cultural diversity: Modes and Means in Primitive-Modern Continuum, in H.K. Patra (Ed) Environment and Disaster Management, Department of Botany, Utkal University, Orissa, 31-40

Jena, M.K., Pathi, P., Dash, J., Patnaik, K.K., Seeland, K., (2002): Forest Tribes of Orissa, Vol.1. The Dongaria Kondh, D.K. Printworld, New Delhi

Jena, M.K., (2003): Economical and Biological Potential of Non Timber Forest Products in the Similipal Hills of Orissa, in (Eds Seeland, K&Schmithusen, F) Indigenous Knowledge, Forest Management and Forest Policy in South Asia, Man and Forest Series, Vol-1, D.K. Printworld, New Delhi

Jena, M.K., Pathi, P., Patnaik, K.K., Seeland, K., (2006): Forest Tribes of Orissa, Vol.2. The KuttiaKondh, D.K. Printworld, New Delhi

Jena, M.K., (2006): Conservation Tactics in Protected Areas: Converting Ecosystem People to Ecological Refugees, in Community Forestry, Bhubaneswar

Jena, M.K., (2007): Non-Timber Forest Produces (NTFP) in the context of Tribal Livelihoods vis-à-vis Contemporary Policy Regime – A Study of Two Tribal Villages in Koraput District, M.Phil. Dissertation submitted to Berhampur University in partial fulfillment for the degree of M. Phil in Tribal Studies (Unpublished)

Jena, M.K., Pathi, P., Ota, A.B., Seeland, K., (2013): Traditional Medicine in Tantrik Traditions, in Adivasi, Jnl of SCSTRTI, Bhubaneswar, Vol.53, No. 1&2: 1-11, June-December

Jena, M.K. &Seeland, K. 2014: Knowledge Systems: Indigenous Knowledge of Trees and Forests, Encyclopaedia of the History of Science, Technology, and Medicine in Non-Western Cultures, Springer Science

Johari, Radhika and Madhav Karki, Ed. (1999). Tribal folk medicinal plant resources of South Asia - Canada. IDRC.

Jose, B. K. 1998. Tribal Ethnomedicine: Continuity and Change. New Delhi: A. P. H. Publishing Corporation.

Joshi, P.C., Kaushal, S. etal. 2006: Witchcraft Beliefs and Practices Among Oraons" Department of Anthropology University of Delhi, Studies of Tribels&Tribales, 4 (2). (http/www.kreppublishers.com/02).

Kakar, D.N. 1995: Socio - Cultural Aspects of Health and Illness in Rural and Tribal India", in Swarankar R.C · Indian Tribes; Health Ecology and Social Structure, Print Well, Jaipur.

Kannuri, N.K. 2009: Koya Perception of Health and Illness: An Ethnomedical Analysis",inDalal, AK.& Ray Subha (ED) reprinted in 2009, Social Dimensions of Health, Rawat Publications~ Jaipur

Kapoor, A.K.& Kshatriya, G.K. 2009: "Demographic Structure and Health Care Practices of Dhodia Tribal Population of District Valsad, Gujrat, in Dalai, A.K.& Ray Subha (Ed), Social Dimensions of Health, Rawat Publication, Jaipur

Kar, S.B.& Patnaik, K.K. (1978). Plants in Folklore and Literature, Folk Culture, Vol.1, Institute of Oriental and Orissan Studies, Cuttack, Orissa.

Kar, R.K.&Barua,T, 1997: Morbidity and Health Behaviour: A Case Study Among the Migrant Munda Tea Labourers, Das FA.& Kar, R.K ~Ed~, Health Studies in Anthropology, Dept. of Anthropology, Dibrugarh Univ. Assam.

Kar, R.K.&Gogoi 1993: Health Culture and Tribal life: A Case Study Among the Noctes of Arunachal Pradesh, in Man and Lifo. Vol.9, No.I-2, January-June

Kar, R. K. 2004., Ethnomedicine and Tribal Health: An Illustrative Appraisal; Tribal Health and Medicines. Ed. By A. K. Kalla and P. C. Joshi. New Delhi: Concept Publishing Co.

Kaushal, S. 2004., Healing Practices among the Gaddi Tribe of Himachal Pradesh. Tribal Health and Medicines. Ed. By A. K. Kalla and P. C. Joshi. New Delhi: Concept Publishing Co.

Kleinman, A. (1978): Concepts and a model for the comparison of medical systems as cultural systems, Social Science and Medicine 12 (2B):85-93

Khare, R, S. 1981: "Folk Medicine in North Indian Village, Some Further notes and Observations," Giri Raj Gupta (Ed), Main Currents in Indian Sociology-IV: The Social and Cultural Context of Medicine in India, Vikash Publishing House, New Delhi.

Kirtikar, K. R. & B. D. Basu (1935). Indian Medicinal Plants, 4 Vols., L. M. Basu, Allahabad

Kleinman, A. (1980): Patients and healers in the context of culture: An exploration of the borderland between Anthropology, Medicine and Psychiatry. University of California Press, Berkeley

Krippner, S., (2003): Models of Ethno-medicinal Healing. Paper Presented at the Ethno-medicine Conferences, Munich, Germany. April 26–27 and October 11–12, 2003

Kroeber, A.L., (1947): Configuration of Cultural Growth, University of California Press

Kujur, Anupa A. 1989: The Oraon habitat: A Study in Cultural Geography Published by The Daughter of the Cross Satya Bharati, Ranchi

Kumar, K. and A. K. Goel 1998., Little Known Medicinal Plants of Santhal and Paharia .Tribes in Santhal Pragana, Bihar, India. Ethnobotany. Vol. 10, pp. 66-69.

Kumar, A. K. 2008: Ethno-medicine, Indigenous Healers and Disease Healing practices Among the Kolam of Adilabad District of Andhra Pradesh", in Singh Awadhesh Kr. (Ed), Tribal Development in India, Serials Publications, New Delhi

Kumar, T. C, Anand 2003: Health Status of Primitive Tribes of Orissa, in Mathur J N. (Ed.) I C M R, Oct. 2003, Vol,33 No. I 0 in Studies of Tribes and Tribals (http://www.icmr.nic.in/BU) Oct.03pdf.

Kurup, P.V.N., (1977): Bird's eye view on the Indigenous Systems of Medicine in India, New Delhi

Lambert, John et a1 (1997). Medicinal Plants: rescuing a global heritage - Washington: World Bank

Lee, R., Ballick, M.J., (2001): Ethno-medicine: Ancient Wisdom for Contemporary Healing, Alternative Therapies in Health and medicine 7(3):28-30

Levine, NE. 1989: Spirit Possession and Ethnic Polotics in Nepal North West, in Himalayan Research Bulletine, Vol-9, No. I, P 11-19

Leeuwenberg, A. J. M. (Compiled) (1988). Medicinal and Poisonous Plants of the Tropics (Proc. of Sym. 5-35 of the 14th lnt. Bot. Cong. Berlin 24 Jul-1 Aug. 1987) International Book Distributors, Dehra Dun

Lindenbaum, S. (1979): Kuru sorcery: Disease and danger in the Guinea Highlands, Mayfield, Palo Alto

Lowe, H., Payne-Jackson, A., Beckstrom-Sternberg, S.M., Duke, J.A., (2000): Jamaica's Ethnomedicine: Its potential in the healthcare system, Canoe Press; Univ. of the West Indies, Kingston, Jamaica.170

Maiti, S. 2009: A Study of Ethno medicine Among the Bhotias of Chamoli (Uttaranchal), in Dalal, AK. & Ray Subha (Eil)2009 reprinted, Social Dimensions of Health, Rawat Publication; Jaipur

Majumdar, G. P (1927). Vanaspati-Plant & Plant life as in Indian Treatises and Traditions, Calcutta.

Majumdar, D. N. (1961). Races and Cultures of India - Delhi: Asia Publishing.

Mashelkar (2002). Intellectual property rights and the third world - http://sustsci.harvard.edu/ists/TWAS~0202/mashelka

Medhi, B.K.& Paul, B. 2004: "Health and Hygiene of the Nahs of Arunachal Pradesh" Dept. of Anthropology, Gauhati, Univ. of Gauhati, Assam in Studies of Tribes and Tribals, 2(1) 23-27,(http://www.popline.org)

Merlin, F., Narasimhan. D., (2012). Ethnobotany of The Kondh, Poraja, Gadaba and Bonda of the Koraput Region of Odisha, India, D.K. Printworld, New Delhi

Mibang, T. and S. K. Choudhuri, 2003. Ethnomedicines of the Tribes of Arunachal Pradesh. Delhi: Himalayan Publisher.

Mital, K. 1979: Primitive medicine Versus Modem Medicine Among the Santhals, Journal of Social Research, Vol. 22, No.I

Mohapatra, B., Parida, R.K., Jena, M.K., (2013): Indigenous Ethno-Ecological Knowledge: Empirical Studies on Sunabera&Karlapat of Odisha, International Journal of Innovative Research and Studies (IJIRS), Vol.2, Issue,11:204-223, November 2013

Mohapatra, B., (2014): Indigenous Knowledge, Environmental Perceptions on Biodiversity Management Systems by Tribal Communities: A Study with Special Reference to Certain Protected Areas (PA) Of Orissa, Ph.D. Dissertation, Ravenshaw University, Cuttack, Odisha, (Unpublished)

Mohapatra, B., Parida, R., Jena, M.K., Ota, A.B. (2014): Folk knowledge on utilitarian aspects of plants: Findings from ChuktiaBhunjia and Gonds in Sonabera Plateau, Adivasi, Journal of SCSTRTI, Bhubaneswar, Vol.54, No 1&2:1-8

Mooney, H. F (1950). Supplements to The Botany of Bihar and Orissa, Ranchi

Murmur, D. F., 2004. Plant Use among the tribal of Jharkhand. Tribal Health and Medicines. Ed. By A. K. Kalla and P. C. Joshi. New Delhi: Concept Publishing Co.

Nagla, M. 2007: Culture and Health Care: An Interface. in Akram, Md. (Ed.), Health Dynamics of Marginalised Communities, Rawat Publications

Nayak, R. K., B. M. Boal and N. Soreng, 1996. The Gadbas: A Handbook for Development. New Delhi. Indian Social Institute.

Ota, A.B., and Mohanty, S.C., (2015): Particularly Vulnerable Tribal Groups (PTGs) of Odisha, in Ota & Mohanty (Ed.) Particularly Vulnerable Tribal Groups (PTGs) of Odisha, Volume III, SCSTRTI, Bhubaneswar, Odisha

Pal, D. C.& Jain, S.K. 1998: Tribal Medicine, Naya Prakash, Calcutta.

Pal, D. C.& Banerjee, D. (1973-74). Plants used by the Tribal People in Orissa for hair and Scalp Preparation. Adibasi, XV, THRTI, Orissa.

Pal, D.C, A. K. Bhattacharjee & A. Guha. (1986). Perspectives of Tribal Concept About Diseases in Traditional Systems, Chaudhury, B (Ed.) Tribal Health: Socio Cultural Dimensions, Inter India Publications, New Delhi.

Palekar, R. P., 1995. Ethno-Medical Traditions of Thakur Tribals of Karjat, Maharashtra. Tribal Health in India. Ed. By B. Singh and N. Mahanti. New Delhi: Inter-India Publications.

Panigrahi, N. (1991). "Ethnomedicine" among the Gonds of Orissa. Tribal demography in India/Ed. by R. N. Pati and LalitenduJayatdeb, New Delhi, Ashish Publishing.

Panigrahi, G. (1963). Gandhamardan Parbat, Orissa, A Potential Source of Important Indigenous Drugs, Regional Research Laborotory Bulletin, 1 (2).

Pati, R. N. and LalitenduJayateb, Ed. (1991). Tribal demography in India - New Delhi: Ashish Publishing.

Patnaik, N., (2000): Eco-Diversity and Indigenous Knowledge of Forests, in Seeland, K. &Schmithusen, F. (Ed.) Man in the Forest, Man and Forest Series, Vol-1:89-112, D.K. Printworld, New Delhi

Patnaik, K.K., (2000): Folk Medicines and Plants used by Tribals of Phulbani and Koraput Districts of Orissa and their Future, in Seeland, K. &Schmithusen, F. (Ed.) Man in the Forest, Man and Forest Series, Vol-1:331-344, D.K. Printworld, New Delhi

Patnaik, N., Choudhury, B.P., Seeland, K., Rath, A., Biswal, A.K., Giri, D.B., (2007): Forest Tribes of Orissa, Vol. 3. The Juang. D.K. Printworld, New Delhi

Patnaik, N., Choudhury, B.P., Rath, A., Senapati, P.K., Giri, D.B., Mishra, M., Mohanty, P., Jena, M.K., Seeland, K., (2015): Forest Tribes of Orissa, Vol. 4. The Hill Bhuinya of Kendujhar. D.K. Printworld, New Delhi

Patnaik, N. 1990: Sociology and Public Health. in Chaudhury, B. (Ed~, Cutural and Environmental Dimensions on Health, Inter India Publications, New Delhi.

Planning Commission - Government of India (2000). Report of the Task force on conservation and sustainable use of medicinal plants: http://planningcommission.nic.in/task/tsk-medi.pdf.

Pokarana, K.L. 1994: Social beliefs and Cultural Practices in Health and Disease, Rawat Publication, New Delhi.

Rajendran, A.N. Rama Rao and A. N. Henry, 1997. Rare and Noteworthy Plants of the Eastern Ghats in Andhra Pradesh with their Ethnic uses. Ethnobotany. Vol. 9, pp. 39-43.

Rath, B. Acharya, S. (1988). A Correlation of Plants in Indian Folk Literature. Institute of Oriental and Orissan Studies, Maitree Sarani, Cuttack.

Rath, S. S., 2004. Indian Tribes and their Urgent and Emerging Health Statius: An Overview. Tribal Health and Medicines. Ed. By A. K. Kalla and P. C. Joshi. New Delhi: Concept Publishing Co.

Reddy, B. S. (1986). An Approach to the Integration of Traditional Medicine and Modem Medicine: A Hypothetical Model in Chaudhuri, B. (Ed.) Tribal Health: Socio Cultural Dimensions. New Delhi: Inter India.

Rivers, W.H.R., (1927): Medicine, Magic and Religion, Kegan Paul, New York: 2nd Ed.

Roy Burman, J.J. 2003: Tribal Medicine: Traditional Practices and Change in Sikkim, Mittal Publication, New Delhi

Rubel, A.J., and Hass, M.R., (1990), Ethno-medicine, in Thomas, M.J. and Carolyn, F.S. (Ed) Medical Anthropology: A Handbook of Theory and Methods, Greenwood Press, New York

Sahu, S.K. 1991: Health Culture in Transition: A Case Study of Oraon tribe in Rural and Industrial Nexus, Khanna Publishers, New Delhi

Sachchidananda 1986: Socio - Cultural Dimension of Tribal health, Journal of Social and Economic Studies, Vol.2, No.4.

Sahoo, A. K. (1986). Plant Resources of Phulbani District (Orissa). Some Suggestion to develop Cottage Industries in Tribal Localities. Orissa Review 43 (3).

Said, H.M., (1983). The Potential of Herbal Medicine in Modern Medical Therapy, Hamdard, Vol.26 (2):3-25

Sahu, B. N. (1985). Similipal as a Biosphere in the National Context in Patro& Mishra (Ed.). Conservation of Similipal in its Wilderness. Berhampur: Orissa Environment Society.

Saraswathi, Baidyanath (1987). Tribal Ayurveda: must we destory it - Paper presented in the National Workshop on Anthropology of Tribal Health and Medicine in Forest Environment - Calicut: KIRTADS, 22-24 April.

Satapathy, G.C. (1980-8l). Plants and Magico-Religious Beleifs of Tribals- A Field Study in Kalahandi District. Adibasi, XX (1-4).

Saxena, M. Brahmam, H.O., & Dutta, RK. (1981). Ethnobotanical Studies in Orissa in Jain, S.K. (Ed.). New Delhi: Glimpses of Indian Ethnobotany, Oxford & IBH, Pub. Co.

Saxena, H.O. & P. K. Dutta (1975). Studies on Ethnobotany of Orissa. Botanical Survey of India, 17 (1-4).

SCSTRTI (1997a): Tribal Medicine and Medicine men: An Exploratory Study of the Bondo of Orissa. Adivasi, Vol. XXXVII. No.2.:33-71. Scheduled Castes and Scheduled Tribes Research and Training Institute, Bhubaneswar

SCSTRTI (1997b): Tribal Medicine and Medicinemen: An Exploratory Study of the Bondo of Orissa. Adivasi, Vol. XXXVII. No.2:72-101. Scheduled Castes and Scheduled Tribes Research and Training Institute, Bhubaneswar

Setzer, M.C., Werka, J.S., Irvine, A.K., Jackes, B.R., Setzer, W.N., (2006): Biological activity of rainforest plant extracts from far north Queensland, Australia. In Williams LAD ed. Biologically Active Natural Products for the 21st Century. Research Signpost, Trivandrum-695 023, Kerala, India, 21–46

Shankar et al, (2001). Social context of Local health traditions. FRLHT'S Arnruth: The medical plants magazine - Vol. 5(1), Feb, pp. 3 - 9.

Shanker, Darshan (1989) Revitalisation of primary health care in rural India - a modern challenge - In Tribal Medicine/Ed. By Budhadeb Chaudhari and Dipankar Dasgupta - Midnapore: Regional research study center, pp. 241 - 225.

Shah, N.C. (1981). The Role of Ethnobotany in Relation to Medicinal Plants in India in S.K. Jain (Ed.). Glimpses of Indian Ethnobotany, Oxford & IBH, Pub. Co. New Delhi

Sharma, P. Dash, (1999). A study on bio-diversity of Hatma village, Mandar, Ranchi - Anthropologist, Vol. 1(1), pp. 73-79

Singh, U. &Lahiri, N. 2010: Ancient India: New Research, Oxford University Press, India

Singh, A. P. 2004., Healing Practices among the Tribes of Uttaranchal. Tribal Health and Medicines. A.K.Kalla&Joshi. New Delhi: Concept Publishing Co.

Singh, B. & Mahanti, N. (Ed) 1995: Tribal Health in India, Jigyansu Tribal Research Centre, New Delhi, Inter India Publications, New Delhi

Singh U.P. 2008: Tribal Health in North-East India: A Study of Socio-Cultural Dimensions of Health Care Practices, Serials Publications, New Delhi

Sinha, R. K., 1979., Disease and Disease Scripts among the Pando Tribe. Journal of Social Research. Vol. XXII (1).

Soren, Gideon, (1997) Quated in Intellectual property rights and biopiracy their implication for tribal medical traditional/ Mohammed Asif - Social Action, Vol. 48(4), Oct. De. 1998, pp. 376 - 391.

Sridevi, C. 1989: Modem Women, Tribal Medicine Change" in Man and Life, Vol. 15, July-December

Srinivasan, S. 1974: Folk Culture and Oral Tradition, Avinav Publications. New Delhi

Subudhi, H. N. and Choudhury, B. P (1985). Ethnobotanical Studies in the District of Phulbani (Orissa)-I, Bological Science Research Bulletin, 1 (1 -2)

Sujatha, V. 2003: Health by the People: Sociology of Medical Lore, Rawat Publication, New Delhi

Thothathri, K., Sen, R., Pal, D.C., (1990). Ethnobotany of less known oil yielding plants. Indian Journal of Forestry, 13(3):268-270.

Tiara, S. K., 2001., Medical Geography of Indian Tribes. New Delhi: Discovery Publishing House.

Tribhuwan, R. D., 2004. Health of Primitive Tribes. New Delhi: Discovery Pub.

Tribhuwan, R. D. and K. Sherry, 2004. Health, Medicine and Nutrition of the Tribes. New Delhi: Discovery Publishing House.

Troisi, J. 1978: Tribal Religion; Religious Beliefs and Practices Among the Santals, Manohar publishers, New Delhi

Turner, V., (1967): The forest of symbols: aspects of Ndembur ritual, Cornell Univ. Press, Ithaca. New York.

Varma, S. K., 1997. Comparative Studies on Folk Drugs of tribals of Chotnagapur and SantahlPragana of Bihar, India. Ethnobotany. Vol. 9, pp. 70-76.

Vijayaendra, B. R. and H. K. Bhat, 2004. Ethnomedicine among the JuangKuruba of Karnataka. Tribal Health and Medicines. Ed. by A. K. Kalla and Joshi. New Delhi: Concept Publishing Co.

Waldstein, A., Adams, C., (2006): The interface between medical anthropology and medical ethnobiology. Journal of Royal Anthropological Institute N.S.:95-118

Wellin, E., (1977): Theoretical Orientations in Medical Anthropology: Continuity and Change over the Past Half Century, in D.Landy (Ed) Culture, Disease and Healing: Studies in Medical Anthropology, London: Collier Macmillan Publishers

WHO (2003): Traditional Medicine, Fact sheet No 134.http://www.who.int/mediacentre/factsheets/fs 134/en/

WHO (2000): General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine; WHO/EDM/TRM/2000.1, Geneva

WHO (1978). The promotion and development of traditional medicine - Technical report series, 622 - Geneva: WHO

Xaxa, V. 2007: "Cultural Dimensions of Ecology: A Case Study of Oraons", in BaidyanthSaraswati (Ed), Co- Published IGNCA & Print World, New Delhi. (http://www.ignca.nic.in/cd_070 14.htm)

Zhang, Xiaorui (2000). Traditional medicine and its knowledge - UNCTAD Expert meeting on systems and National experiences for protecting traditional knowledge - Geneva: United Nation, 30th October.

Zysk, K. 1996. Medicine in the Veda: Religious healing in the Veda Motilal Banarisidas, Delhi Zysk, K. 1998. Asceticism and Healing in Ancient India: Medicine in The Buddhist Monastery, Motilal Banarisidas, Delhi