

VOL. 26, 2019

ISSN 2347-1530

MAN IN SOCIETY

THE JOURNAL OF ANTHROPOLOGY DEPARTMENT



Published by

PG DEPARTMENT OF ANTHROPOLOGY

UTKAL UNIVERSITY
BHUBANESWAR, INDIA - 751004

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“MAN IN SOCIETY- The Journal of Anthropology Department” is an annual peer-reviewed journal with ISSN No: 2347-1530 of the P.G. Department of Anthropology, Utkal University, designed for prompt publications of original and important articles in the field of anthropology. The contributions can be in the form of papers, shorter notes, review articles, book reviews and discussions.

*All the printing process is powered by
Prasar Media Communication
B-9, Sahidnagar, Bhubaneswar
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Subscription: **Man in Society** is published once a year:

Annual Subscription:

Individual: INR 300

Institutional: INR 500

Printed and Published by Dr. Prasanna Kumar Patra, Head, PG Department of Anthropology, Utkal University on behalf PG Department of Anthropology, Utkal University, Vani Vihar, Bhubaneswar, Pin- 751004, Ph: 0674 2567217, E-mail: headanthroutkal@gmail.com, Website: www.misanthroutkal.com

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Editorial

The present volume of *Man in Society* is a collection of research articles contributed by the research scholars and faculty members. The research article published reflects the endeavor of the scholars to explore new domain in anthropological research. Now this journal achieved a modest accomplishment by getting it published regularly and giving emphasis to peer-review process done by domain experts locally and nationally.

There are financial and human resource constraints relating to its improvement of standard as well as in order to place the journal in the local, national and global spheres. However, as a policy matter it has been our attempt to give importance and opportunity to both young and experienced writers and also to see how articles considered in a volume has a good combination of empirical as well as review work. We wish that increasingly *Man in Society* to become a platform for writing in any and every aspects of human experiences contributed by authors based at anywhere in the globe. As the peer review process is fast changing, we are trying to involve professionally equipped experts to examine the manuscripts, critically evaluate and facilitate writers to improve their work. Getting competent and willing reviewer has been the biggest challenge. The Students' Seminar of the Department and partial contributions by authors are critical in meeting the financial need for timely publication. But to make the publication sustainable, better ways have to be found in coming years, sellings and exchange of some copies of the volume could be one way. In coming days, we need to find out more takers such as libraries of public and private institutions where anthropological expertises are utilized, willing publishers to promote through purchase of bulk copies and buyers from among active researchers and faculty members. A concerted effort, keeping all the issues in mind, by stakeholders will surely make *Man in Society* as a sought after journal in the field of human enquiry.

This volume contains 14 research articles and a book review. The first article by Sahoo and Maharana is an empirical study on nature and function of weekly market among Kolha community of North Odisha. The second article by Tripathy discusses about the role of small priests and their authoritarianism and politics inside a village territory on the social level in Ganjam district of southern Odisha. The third article is a review article on mental health by Sahoo and Patra. In this article, an overview of some burning factors and its association with mental health has been described briefly. The fourth article is on the ethnographic profile and genomic insight of an Indo-European speaking Chaudhari tribe of Southern Gujarat. The socio-cultural attributes are presented along with findings from the genomic studies reveals that the genetic uniformity of Chaudhari tribe with other tribes of Gujarat and Dravidian tribes of India. The fifth article by Barik et al. deals with the random blood sugar distribution among Santal community of Mayubhanj district of Odisha. The study reveals that the frequency of people with very high blood sugar level is more in the higher age groups than the lower age group and amongst them the males are more affected than the

females and among the rural inhabitants it is low.

In the sixth article, Gouda et al. discussed about the prevalence alcohol consumption, pattern of consumption, drinking habit, preparation methods among the Santal and Kolha tribal communities of Northern Odisha. The seventh article by Behera is on the case study among Kondh community of Kandhamal district of Odisha and he worked on the premise that continuity is the key to the survival of indigenous cultures. Sethi et al. in her article made an attempt to visualize the problems of the widows in Odisha in the context of Manusmriti. Bala in her article on educational support system to students with Autism Spectrum Disorder (ASD) in Odisha revealed that policies and programmes are hardly implemented to respond to the pragmatic need of the people with disability in the ninth chapter. The tenth paper by Panda et al. discussed on the role of anthropologist in disaster management. Sarkar et al. in their paper provide a brief account of research works carried out on the Juangas – a Particularly Vulnerable Tribal Group of Odisha. In the twelfth paper, Badamali et al. discussed the distribution and patterns of tobacco consumption among the tribes of North Odisha. Their study has revealed that the higher traditional form of tobacco consumption among the indigenous communities than other mode of use of tobacco. In the article on immunization status among the Munda children of Jajpur District, Odisha Das et al. observed that vaccination and immunization to infants and children are showing an increasing trend due to the intervention of NRHM and the placement of Accredited Social Health Activist (ASHA) workers. The fourteenth and last article by Nayak discusses how palm leaf manuscripts bear the literary heritage of the civilized nations as carriers of wisdom and knowledge. The volume also contains one book review done by Suwendu Acharya on Tibetan settled in Odisha entitled 'Refugees Health' authored by K.C. Satapathy.

I wish the inputs in this volume will be useful for researches as well as practitioners of anthropology and other social science at present.

Kanhu Charan Satapathy
Editor in Chief

Weekly Market in Tribal Areas of Odisha: A Case Study among the Kolha Tribal Community of North Odisha

Laxman Kumar Sahoo¹ and Rajeswar Maharana²

Abstract

The present paper aims to describe weekly market system among the Kolha tribal community of north Odisha. The study was conducted from Mayurbhanj district of Odisha. The data for the paper were collected from primary sources. The paper adopted techniques like participant observation, unstructured Interview schedule, random and purposive sampling for data collection. The paper delineated the nature and function of weekly market; mode of business and the problems of weekly market; socio-cultural and economic aspects of weekly market and the changes therein from anthropological point of view.

Key Words : Kolha, Mayurbhanj, Odisha

Introduction

The tribal communities live in and around the forests. They are exclusively dependent on forests for their livelihood. They regularly resort to collection, gathering and hunting in the nearby forest. Their entire life revolves round the forest. Tribal communities are always at the mercy of nature. They live like natural men (Behura and Mohanti, 2009). They cultivate whatever land is available to them with primitive methods. They reap the forest produce also. Even most of the tribal's livelihood depends on forest produces. Many agricultural societies have been able to get along with little or no reliance on money or markets. Because of self-sufficiency, they do not have to depend much on trade and can resort to barter for needed items.

We think that the Markets as place where things and goods are bought and sold. The network system of the market is very large and popular. The partners of this system are producers of agricultural products, traders of various manufacturers, artisans, and service providers, wholesale buyers facilitating agencies like transport organizations, catering agencies, monitoring and supervising organizations, local self-government and other agencies. The weekly market plays an important role in the tribal economy because these markets serve as the main

channels through which local forest produces and the others important forest goods are distributed. It is one of the economic factors, which influences the cropping pattern and consumption habits of people. It has significant role to play in improving the standard of living even the most primitive people, living in remote tribal belts in India (Rao, 1988).

Market has also a cultural construct, says Paul Alexander. Market is the locus of exchange and the exchange of the goods appears as a continuous social relation. Almost all communities have reported to be link with market for the sale of their 'produce' and the purchase of essential commodities. Every community in rural and tribal areas produces something for market like cereals, cash crops and horticultural products (Singh, 1996). Markets are said to differ according to whether supply, demand and price can operate freely within them (Bohanan and Dalton 1968). We learn that markets can be perfect, imperfect, volatile or stable. The outline, extent and growth of markets appear large in any debate about development. The kind of market operating in a given locality says something about the presence or absence of capitalism and globalization, and the impact they have in rearranging social relationships on a small and on a grand scale. There are many kinds of markets: stock markets, future markets, and international

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commodity markets. There are also rural, tribal and peasant markets. Many anthropologists studied these markets from the 1950s to the 1970s and they were mindful of the specific functions of these markets perform for rural people and how they differ from other markets.

The tribals are also earning money through subsidiary occupations like collection and sale of minor forest produce, hunting and fishing. Makhan Jha (1982) studied the need of weekly markets and its importance in different dimensions among the tribes of Odisha State. At present, the tribals are also engaged in part-time business activities due to seasonal unemployment. Suresh Chandra Rajora (1987) stressed the need of retailing in tribal villages for creation of more employment. Mahalingam S. (1989) has explained the importance of different tribal groups and their marketable products, salient features of tribal marketing structure and institutional building for the development of tribal market.

The paper aims at describing the system, nature and the function of weekly market from north Odisha.

Methodology

The present study used both qualitative and quantitative methods for data collection. Therefore, techniques like participant observation, unstructured Interview schedule were used for data collection. Photography was also required. The people who frequently visit to the weekly market were taken into consideration. Their socio cultural as well as economic activities were intensely observed at various phenomena. Both male and female, youth and old, tribal and non-tribal people, sellers and buyer were randomly selected for the present study. For this purpose seven weekly markets in Bijatala, Bisoi, Rairangpur and Shyamakhunta blocks of Mayurbhanj district were taken into consideration through purposive sampling.

People and Area under Study

Mayurbhanj district is covering a total geographical area of 10,418 sq. Kms. The land locked district at the Northern extreme of the state of Odisha and Baripada is the headquarter of the district laying at a longitude of 87°40' East and latitude of 21°16' and 22°34' North, the Mayurbhanj district is bounded by

the Keonjhar district in the south, East Singhbhum district of Jharkhand in the north and the Balasore district in the east. The district is divided into four revenue sub-division, namely Baripada, Bamanghaty, Panchpirh and Kaptipadal.

The topography of Mayurbhanj district is marked by the hills and undulating plains. The most dominant features of the topography of the Mayurbhanj district is the Similipal range, which is covering the very centre of the district. The Balidhia Gram Panchayat is situated just attach to Similipal Biosphere Reserve (SBR) and the perennial river system is *Palpala* which is the water source of the community of the Shyamakhunta block life line for agricultural activities. The Balidhia study area situated in the latitude of 21°57' to 21°46' North and longitude of 86°36' to 86° 76' East which is about 22 kms. away from Baripada, the district head quarter. Whereas, Bijatala village lying on East Longitude of 85°40' and North Latitude of 21°16' and 22°34' in Mayurbhanj district of Odisha. The village is about 80 km from the district headquarter town of Baripada and about 14 km. from sub-district headquarter and nearest Rairangpur township.

The present work was undertaken among the Kolha, a homogeneous scheduled tribe inhabiting in a small hamlet of Balidhia, the foothill of Similipal and Bijatala the foothill of Bijatala Hill of Mayurbhanj district, Odisha.

Tribal Economies

The economy of a tribe is the projection of its socio-economic system. It demonstrates the level of technology a tribe possesses, and the manner in which the tribes has responded to the eco-system in which it placed; the distribution of goods and services is regulated by considerations of right, obligation, reciprocity and certain mutuality. According to Paul Bohanan (1963), "economy is the way in which resources technology and work are combined to satisfy the materials requirement of human beings and social groups." As we are studying about the tribal market culture, it has seen that, the tribal economic organization is mainly deal with producing for their subsistence and very much determined by the geographical surrounding and the environmental condition. Usually, the tribal people have to struggle very hard to meet their economic needs. Economic organization is a type of social

action. It involves the combination of various kinds of human services with one another and with non-human goods in such a way that they serve given ends.

The major bulk of the tribal population in India (about 80%) is agriculturists. Tribal agriculture has been characterized as unproductive, because of lack of appropriate skill, non-application of proper inputs, lack of irrigation facilities and uneconomic holdings. Land alienation, indebtedness and lack of ability to articulate with credit institutions further aggravate the problems of the agricultural tribes.

Economy of the Kolha

Kolhas are the agriculturalists. Their agriculture is based on plain lands and hilly areas. The main production from agriculture is paddy. Besides paddy, they produce other vegetables like tomato, brinjal, cucumber, greens, chilly, papaya, cabbage etc. They sell their produce either in weekly market or in regular market in urban areas. Collection of minor forest produces is another additional economic support for the Kolha. Mainly the women are found to be engaged themselves for collection of minor forest produces (MFP). These MFPs are *char*, *mahua*, *kendu*, *kendu* leaves, *Amla*, *Sal* seed, *Sal* leave, bamboo *karadi*, different types of forest flowers, *jhuna* (gum), *lakha* and some other tubers and roots and so on. The Kolha in the form of cakes and liquors usually consumes Mahua and small quantities are selling in cooperative societies and weekly market. They also collect roots for making *Ranu* (i.e. used for making *handia*) for preparing rice beer. Family is the unit of production and members of family work together for the economic activities. In Kolha community both male and female have equal role in economy. Due to the hilly area, they faced difficulty to cultivate their land. Therefore, they mostly prefer to plough the land of the riverside. Palpa river water plays a vital role as the main source of their irrigation and daily activities of villagers and the animals of the Balidhia. Recently, some of the Kolha in Bijatala hill near the bank of Bankbal river, have taken up vegetable cultivation like brinjal, potatoes, tomatoes, cauliflower, for the economic support.

Concept of weekly Market

Weekly market plays an important role for disposal of forest produces by tribal people. It means, it is an assembly of sellers and buyers of different types of

goods in certain place during prescribed timing on a particular day of the week. The weekly markets are very popular economic phenomena in tribal areas. The rural/ tribal markets are located nearby place of the village in the open space or along the roads. These weekly markets start by early hours generally at 10 A.M. and they close before sunset. Sometimes during the festive season the timetable may vary. Before sunset all the transactions of weekly market are closed. Weekly markets are called as "hatt" in the tribal areas of Odisha. The weekly markets are held in different places on different days. In the past weekly markets were held at the foothill of fringe mountains where bullock carts could reach.

Several studies have been conducted on weekly market by anthropologists like S. Sinha's (1951) study on weekly market at Bamni, a South Manbhum village; D. P. Sinha (1968) on Banary weekly market; Punalekar (1974) economic studies of marketing system and I.M.K. Rao's (1988) marketing studies in tribal economy, etc. are noteworthy.

The term "Market" is generally used in two senses:

I) Market as a place and

II) Market as a state of affairs.

The former refers to the location as well as some kind of transaction between the buyers and sellers, whereas the second one refers to some kind of demand of certain goods (Dash, 1998). He is also citing an example of forager like Hill Kharia, who mostly depends on the local markets. No doubt they collect a variety of edible and inedible forest resources, but for availing other basic needs like staple food (rice), clothing, medicines etc., they have to look for the marketing of such forest resources in exchange of paddy. In addition to the exchange of goods in the local market, in the field of exchange of labour, the tribal people do provide human labour to the local agriculturists.

Most of the studies on weekly market, deal with the nature and functioning, cultural association, business practices and social composition, etc. However, in addition to the discussion on nature and functions of business practices, the focus on the changing aspects of cultural tradition, globalization and its influences on weekly participants and some existing issues that significantly contribute to the contemporary socio economic discourses need to be discussed.

We are used to thinking of the market as an economic institution, but the present paper will show you that the market is also a social institution. In most agrarian or peasant societies or in a tribal society around the world, periodic markets are a central feature of a social and economic organization. Weekly markets bring together people from surrounding villages, who wish to come and sell their agricultural or other produce and to buy manufactured goods and other items that are not available in their villages. In rural India, there are also specialized markets that take place at less frequent intervals, for instance, cattle markets. These periodic markets link different regional and local economies together, and link them to the wider national economy and to towns and metropolitan centers. The weekly *hatt* is a common site in rural and tribal India. In hilly and forested areas where settlements are far-flung, roads and communications poor, and the economy relatively undeveloped, the weekly market is the major institution for the exchange of goods as well as for social intercourse. Local people come to the market to sell their agricultural or forest produce to traders, who carry it to the towns for resale, and they buy essentials such as salt and agricultural implements, and consumption items such as bangles and jewellery. But, for many visitors, the primary reason to come to the market is social – to meet kin, to arrange marriages, exchange gossip, and so on.

While the weekly market in tribal areas may be a very old institution, its character has changed over time. After these remote areas were brought under the control of the colonial state, they were gradually incorporated into the wider regional and national economies. Tribal areas were 'opened up' by building roads and 'pacifying' the local people (many of whom resisted colonial rule through their so-called 'tribal rebellions'), so that the rich forest and mineral resources of these areas could be exploited. This led to the influx of traders, moneylenders, and other non-tribal people from the plains into these areas. The local tribal economy was transformed as forest produce was sold to outsiders, and money and new kinds of goods entered the system. Tribals were also recruited as labourers to work on plantations and mines that were established under colonialism. A 'market' for tribal labour developed during the colonial period. Due to all these changes, local tribal economies became linked

into wider markets, usually with very negative consequences for local people. For example, the entry of traders and moneylenders from outside the local area led to the impoverishment of adivasis, many of whom lost their land to outsiders.

The major goods that are exchanged in the market are manufactured goods (such as jewellery and charms, pots and knives), non-local foods (such as salt and turmeric), local food and agricultural produce and manufactured items (such as bamboo baskets), and forest produces. The forest produces mainly brought by the adivasis, selling them to the local traders in town. In the market, the buyers are mostly adivasis while the sellers are mainly caste Hindus. Adivasis earn cash from the sale of forest and agricultural produce and from wage labour.

According to Alfred Gell (1982), the anthropologist who studied Dhorai, the market has significance much beyond its economic functions. For example, the layout of the market symbolizes the hierarchical inter-group social relations in this region. Different social groups are located according to their position in the caste and social hierarchy as well as in the market system. The wealthy and high-ranking Rajput jeweller and the middle-ranking local Hindu traders sit in the central 'zones', and the tribal sellers of vegetables and local wares in the outer circles. The quality of social relations is expressed in the kinds of goods that are bought and sold, and the way in which transactions are carried out. For instance, interactions between tribal and non-tribal traders are very different from those between Hindus of the same community: they express hierarchy and social distance rather than social equality.

Anthropologist and sociologist views that the market as a social institution that are constructed in culturally specific ways. For example, markets are often controlled or organized by particular social group or class, and have specific connections to other institutions, social processes and structures. They also highlighted about the economy are socially embedded i.e. one of a weekly tribal market (*hatt*) and others of a traditional business communities. Over the year, the Kolha of the Balidhia and Bijatala village in Mayurbhanj district have been depending on *hatt* as basic marketing mechanism. It is the basic transaction of the goods and services. Besides the transaction of the goods and services, the Kolha comes to this place, which is

a hub of cultural resources, where many forms of their social activities like negotiation of marriage, solution of the family matters and other political issues, solution to disputes and exchange of information take place. They normally depend on the weekly market rather than the daily market.

Weekly Market in the Study Areas of North Odisha

There are different weekly markets and occurring days observed in our study area are mentioned below:

Table 1: Scheduled Market days in the Study Areas of Mayurbhanj

Block Name	Name of the Market	Scheduled Day
Bijatala	Bijatala	Wednesday
	Bankati	Sunday
	Handia Bhatti	Saturday
	Khanta	Monday
Bisoi Rairangpur Shyma khunta	Bisoi	Saturday
	Rairangpur	Friday
	Balidhia	Tuesday

People from various groups participate in the weekly market. Both the Kolha and non-Kolha come to these weekly markets for different purpose. Though different groups of the people participate in the hatt, the participation of the Kolha is seen more than other communities. They constitutes the most numerous and important section of the people in these markets. The Kolha participates in both selling and buying the product. Especially women in the Kolha society are engaged for selling collected MFPs from nearby Similipal forest such as seasonal fruits, vegetables, flower, tubers, and roots. They also found in *handia*

selling in one corner of the hatt. Women from other communities sell cosmetic, bamboo basket, pottery, dry fish and small fish, etc. Male members from other groups of outsider selling the agricultural products, home utensils, grocery items, chicken, mutton, fish, boil eggs, battle nuts, clothes, cosmetics item, tobacco, Jaggery, staple food, dry food, fire wood for cooking, and stationary needs and so on. Sometimes, the Kolha come with poultry and goat to sell them in weekly market. They sell the items those have produced or collected by them directly from nearby forest or agricultural field.

Sale of Commodities in Weekly Market

Table 2: Various Types of Commodities sold in the Weekly Market

Commodities Import from	Products Type	Products Name
Local and neighboring region	Agricultural, pottery and Minor Forest produces, country liquor	Rice, black gram, vegetables (tomatoes, potatoes, beans, greens, green chili, pumpkin, seasonal fruits, mushroom, tubers, karadi, flowers and so on) mud pot, bamboo basket. Broomstick, handia, Mahuli, Rassi
Outside the locality only	Important Goods	Sweets, grocery materials, readymade garments, milk products, brass makers, still utensils, ornaments, glass bangles, cosmetic items, wood materials,
National and international companies	Beverage and cosmetic items	Branded soap, oil, face cream, body talk and deodorant /perfume. Water bottle, Cold drink and foreign liquor

Now with the interaction between the non-tribal people and tribal people often purchase modern and luxurious product from the outsider sellers. Sometimes they consume cold drinks like the Thumps up, coca cola, Pepsi, Limca, sprite etc. However, these types of product were not seen in tribal areas before few decades, but now the advent of the globalization, these products penetrated into all tribal market regions including the weekly markets of our study areas.

Mode of Business in Weekly Market

In the market transactions, several types of weights and measures are used. At present some commodities are sold in kilogram and some are in *Pailas*. The *sal*, *kusum* seeds, paddy, wheat, *mahua*, *dal* as well as other grains towards wage labour are mostly measured in *Pailas* and *seers*. The liquids like rice beer, *mahuli* etc., are measured in bottle or any bowl or pot. Both modern and traditional type of measured are using by the people in this village. As mentioned Dash, some local standard types of measurement are given below for reference (1998:379):

1. For food and other grains, and seed: both modern (kilograms) and traditional (Paila) system are used.
 - i) 1 Mahana = 2 Khandi
 - ii) 1 Khandi = 20 Paila
 - iii) 1 Paila = 750 grams to 950 grms
2. For liquids (Rice Beer, Mahuli)
 - i) Using different shape of the water bottle
 - ii) Using aluminum bowl or stainless glass in different size
3. For fruits and others material : both kilograms and traditional system is used
 - i) 1 Ganda = 4 numbers
 - ii) 1 Kheja = 5 to 10/20 numbers (Numbers depend on the item cost and quality)
4. Sal leaves, others different types twigs, barbatti (*ruma*) types vegetables : using traditional system
 - i) 1 Beeda = 5 to 10 (twigs)
 - ii) 1 beeda = 10 to 20 (sal leaves)

iii) 1 beeda = 20 to 30 (barbatti, types vegetables)

5. For measuring length and breadth : both traditional and modern system are used

i) 1 (hand) hata = 1.5 feet

Mode of Exchange

The economic scene in the tribal areas has exhibited a significant change in the mode of exchange. Earlier in the tribal areas, much of the trades were carried out through the barter system. Now-a-days the Kolha are using the money as a mode of exchange, although they never completely skip up the uses of old tradition i.e. barter system. When a person goes to market with basket full of grains or vegetables, he brings back money or sometimes sweets or any others items for his child. If he wants to buy a piece of cloth, he will do so only with money. Some of them come with money to buy their desired product directly while others come with some agricultural or minor forest products to sell them and buy their desired items. In the month of harvesting time, barter system is seen more among the participants in weekly markets. People visit market with vegetables, grains, and other agricultural products during this period. Maximum numbers of people sell their vegetables and MFPs to middle traders and Mahajans. According to them Mahajans are rich men, they can help them at the time of their needs. Mahajans gives money to the Kolha in advance and after harvesting time they repay their money in the form of agricultural products or working their field as laborer.

Problems of Weekly Market

The respondents face problems in marketing of minor forest produce in agency areas especially in the weekly markets. The respondents are facing many economic, social and ethical problems in and around market. The following are the main problems of the respondents directly or indirectly affecting their trade and development in weekly markets of our study area.

- 1) Low level of literacy
- 2) More expenditure on social custom
- 3) Poor housing and storage facilities
- 4) Language barrier

- 5) Poor management
- 6) Lower quality of produce
- 7) Lack of transport facilities
- 8) Exploitation by middlemen in weekly market
- 9) Lack of institutional guidance
- 10) Fear of Maoist attack

Conclusion

Market systems are peripheral to most of the tribal societies. Tribal markets are different from the modern markets in many aspects. In tribal markets goods are available through exchange and purchase, and often a personal relationship exists between the seller and the buyer. Tribal market serves many other purposes apart from economic transaction. The market is governed by impersonal relationship, i.e.

anybody can buy from anyone. It is specific identifiable place, where all types of transactions are carried out. There is no barrier on the basis of caste, class, gender and religion to participate in weekly market. Thus, it is not only performing the economic function but also show a greater flexibility of social relationship between the tribal and non-tribal. Weekly market has been a better place for transaction of goods and services for the tribal people in general and for the weaker section, small-scale producers, MFP collectors in particular. Now a day the nature of the weekly market in tribal areas changed to some extent where the mixture of both tradition and modernity continues. This could be helpful for the tribal as well as the non-tribal people to be acquainted with the modern trends of marketing in one hand and in other to get rid of exploitation from the middle man.

Photographs of Weekly Market



1. Kolha woman with mud Pots



2. Handia (Rice Beer) selling



Money mode of transaction



4. Mahul selling



5. Using of Paila (seer)



6. Bamboo Basket marketing



7. Interacting with Kolha people before going for fishing



8. View of weekly Market



9. Interacting with local seller



10. Kolha people selling local produces.



11. Unfixed saloon



12. Interaction with country liquor seller

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The Ascetic Politics of the Divine Play Social Politics through Rituals and Performances in South Odisha

Akash Tripathy

Abstract

The priests in the small villages of south Odisha are generally not very reputed. Although they are not renowned in the whole state or even district such small-scale priests are quite famous within the village territory. They generally worship the village deity in the common village temple. These temples or rather shrines, as an institution, are considered to be socially, politically and religiously stronger within a territorial region. Such institutions see itself as a unit of social unification through performances for the deity time to time. Thus the power these temples possess, comes automatically to the person in – charge in the temple, worshipping the deity. These priests are often observed to guide the social regulations arbitrarily and gradually takes control over it as a medium of the deity. Slowly such social - involvement of these godmen transforms into an autonomous form of socio-religious manipulation within the society. This essay focuses on the authoritarianism and politics being regulated by such priests inside a village territory on the social level in Ganjam district of Odisha. It further inspects how the priest in the local village temple construct their politics through faith and authoritarian ship within the village territory acting as the centre to whole society.

Key Words: Deity, Politics, Center and Periphery, Priest, South Odisha.

Introduction

The state of Odisha is situated on the eastern side of the Indian subcontinent. Lying in about 155,000 sq. Km, it nets a total population of 3.5 million (Census 2011, Govt. of India reports). It shares the southern border with Andhra Pradesh and Jharkhand on the west. Odisha forms a closed cultural zone with two sides covered. With the Eastern Ghats and coastal side with Bay of Bengal on the east, and due to that it mostly retains its internal influence to a considerable degree. Dinanath Pathy has studied extensively about the comprehensive districts of South Odisha (2001). He suggests that the mainlands of south Odisha comprises the districts of Ganjam, Koraput and Phulbani (Later few other districts were added such as Rayagada, Malkangiri, Gajapati, Kalahandi etc.). He further continues that Phulbani (Boud Subdivision) was previously known as Khinjili Mandala (Pathy, 2001). The Ganjam district has been versatile in part of my study and thus my study is focused on Ganjam district and area within.

Although the south Odisha was a separate administrative entity, and in – spite of what historical

reference suggest about political differences, it still had a close cultural relationship with the central authorities of Odisha (Kulke, 1978). South Odisha, geographically, is divided into two parts, hilly areas and the plain tracts. Several ethnographic studies have been done previously on the communities living in the hilly regions such as Kondh, Gadaba, Saura etc. (Pfeffer, 2014; Carrin, 2014; Guzy, 2012). The population genesis of a merely migrated bunch to established population has been observed immensely in last few decades. The influence of multiplicity in population from different geographical location helped to constitute the mainland of Odisha over time. Bhairabi Prasad Sahu (2012) suggests that the gradual coming together of localities and sub-regions at different stages of cultural attainment, the consequent overlaps and intersections, and the wider network of trans – regional cultural transactions with the contemporary societies went into the shaping of the region today known as modern Odisha. Numerous identities gradually overlapped and coexisted in similar times based on caste, sect, text and locality during the medieval history of Odisha (Das, 1977).

Occupational settlement of people from different geographical location marked the identity symbol during the course of time (Pati, 2001). Several communities thus settled and flourished later on with time. The village structure in a south Odishan context is relatively peculiar as compared to rest of Odisha (Pathy and Fischer, 2012; Pathy, 2001). The normative observed within this structure of village is crucial to understand the mechanics of it.

Northern Ganjam provides a dome of livelihood to majorly all sorts of communities when described on basis of caste. Census reports 2011 suggests that there are more than 3200 villages in Ganjam itself. Each village regulates its religious norms corresponding to its structure and population mirage. Hence, the structure of the village is crucial in order to understand the working mechanism of the social system within the region. It is observed as each village is sectioned into two with a main road and houses on both sides of it. The village in Southern Odisha follows a strict rule caste occupation basis, regulated on caste stratification. With each side houses of the main street, several narrow paths and streets are also observed which ends up at significant locations within the village periphery such as the pond, the temple etc. The south Odishan villages generally comprises of mostly caste – based societies, starting from the higher caste such as Brahmin, Vaishya, Karana etc. to the lowest such as Sudras or even untouchable like Haadi, Paana, Dandaasi, Khadaala etc. However, the duties assigned to each caste is different and is supposed to perform according to the Varna system. Studies done in the respective region shows about how the southern Odisha developed with the help of merged social classes (Kulke, 1978; Mallebrein, 2008; Das, 1977). Historical references majorly identify the region with context to religious reformations (Mukherjee, 1964; Pathy, 2001; Sahu, 1997, Rousseleau, 2005).

New paradigms with context to religious reformation started during the introduction of Buddhism in the region around sixth century AD. Several scholars eminently wrote about the influence of Buddhism in the region, mainly suggesting that the ancient name of Odisha was Kalinga and its capital was located at Dantapura, under the Ganga dynasty (Rajguru, 1968, 1972; Ganjam district gazetteer, MSS, Page – 1). Later on, Dantapura was subdued to be one of the prime

location of Buddhist entities and later formed the southern boundary of old Ganjam district. Further evidence of Buddhist influences found in the region were the rock edicts of King Asoka, at Jaugadh, on the banks of Rusikulya river near Purusottamapur in Ganjam (Ganjam district gazetteer, 1968, Page – 14; Epigraphic Indica, Vol – XX, Page - 22). Rajguru further suggests that alongside Buddhism, Shaivism and Saktism were something that flourished immensely in the region. With the coming of the 8th century, the Saivism cult started to propagate till the time Ganga rulers ruled (Kulke, 1982; Patnaik, 2004). However, it is crucial to understand that by this time, around 8th and 9th century AD, the influence of Sakti cult in Odisha had already started yet sidelined (Das, 1977). The Sakti cult, as Das suggests (1977), provide evidence of existence as innumerable tantric spots on coastal belts of Odisha. Other references of the Tantric cult were found, although in the different location of Odisha, from the same time period. With the coming of Saivism, it provided a base for Vaishnavism in the later period. By the time Saivism was evading, Vaishnavism took its place and replaced with proficiency during the late 14th century. With such developments in religious core, the importance of Devi has been a prime element within the social manifestations.

During my fieldwork in Ganjam district in December 2016, I tried to observe the mechanics of the religious elements present during each certain ritual I participated in. Although during the rituals, be it Chaitra Mangalabara or Jahni Osa (Hauser, 2012; see also Pathy, 1996), each performance has a different communicative model and motif. Several other studies, regarding female participation in ritual ceremony (Carrin, 2014; Mallebrein, 2014; Hauser, 2012), Chaitra Paraba (Rousseleau; 2012), Boil rituals (Skoda, 2014; Guzy, 2014, see also Tanabe, 2006 and Pfeffer, 2007) etc. have suggested the performance of the ritual to be normative in nature. Hauser (2008) provides a clear demarcation of such understandings. She suggests:

“As the performance get emphasized, singularity and individual body of the performer turn to the behaviour associated with the deity. Several times, it achieves semiotics and becomes normative.” (Hauser, 2008)

In south Odisha, a deity is an an iconic form of worship; as stone, as an earthen sculpture,

representing as natural elements such as lakes, mountains, rivers etc. New inference regarding such an iconic form of worship provided a base for my ethnographic quest. Previous studies in the region, about votive rites of women, Tuesday pageants etc. (Hauser, 2008, 2012) have already captured the diagram of performance and ritual metabolism in south Odishan context. Different notions of a ritual performance come into play when the performer and elements of ritual connect together. Similar phenomenological concepts in anthropology are described by several scholars through the idea of embodiment (Merleau – Ponty, 1962; Lambek, 1989; Csordas, 1990, Hauser, 2008, 2011). They are confined to certain objective and sometimes, are performed for affliction. Typical affliction may vary for several reasons (Sax, 2009). I try to anticipate one more aspect of ritual metabolism with respect to autonomous power and religious politics by the priests/oracles and how the religious politics within the altar of the deity initiates and propagates on to a social level. Consideration of the embodiment of a ritual is rather one of the modes of involuntary action than an agency. Experiencing the divine body from a controlled state of mind is again, verified as self – identity (Basu, 1992; Kramer, 1984; Mayaram, 1999). The difference in the agency is observed distinctively in the altar's periphery. I would anticipate this idea through a ritual observation in a festival, Pusa Punei in front of Maa Baapangi¹, Bhaliakhai village, Ganjam district in Odisha. The festival is marked as several married women participate in order to worship the village goddess. These women bring complaints and wish to the goddess along with the offerings they carry to celebrate the occasion. The aesthetics of the occasion is accounted later in the essay. On this occasion, an Oracle is also requested to perform a ritual along with the prayers by the Brahmin priest. The Oracle, even though belongs to a lower caste, he acts as an auxiliary – priest within the platform. Crucial elements of prayer and the ritual are instigated by him. Following discourses will uncover several critical details of the socio – religious politics with context to ritual performances in south Odisha and will cover about the religious cosmos discourse as well.

The Agency of the Divine Play:

Inside the marginalized territory of south Odisha,

the importance of the village deity is understood for the essence of its asceticism. Within the village perimeter, it is the religious symbol for a Hinduistic identity. It is a statutory figurine which is considered to be a central point of individual, familial as well as communal worship. Although each household either follows their respective clan deity or lineage deity (Kula – Devi) also, but on the social ground, it is the village goddess, The Gramadevati, who is primarily worshipped. Here in this discourse, the deity is Maa Baapangi as the village deity in Bhaliakhai of Ganjam district. This deity is a female figurine and resembles an epithet of Durga. According to common discourse, she suffices the daily bread for the poor, protects each one from mystic demons and social evils along with being the guardian of the whole village. This notion portrays towards a female identity of worship as the female identity reflects the sentiments of Maa (lit. mother), who also showcases herself as a savior as well as takes care of the people with love and affection. This deity is believed to be a common answer for different social and ménage problems. Be it social, psychological, personal, ranging from quarrels within the family and neighboring distress to biological issues within the females, the goddess is believed that she listens to all. On a greater understanding, when people narrate their problems to the deity, they rely on aesthetics of faith and pray for a solution in return. The deity as a whole holds the community as an alter – world thread and ties within certain religious boundaries. The local deity, primarily being a form of a goddess in a Hindu context in South Odisha, it is colloquially referred as Mahapuru. This icon or form of the goddess is uniquely observed in each village. The nomenclature basis of such icons is different for each village respectively. Many a time, the naming of the deity is done either on her characteristics traits such as Saarala, Mangala etc. or it is based upon the performances associated with her during the establishment of it. The local goddess symbolizes as a remedial platform in several contexts with respect to society, polity, economy, health, psychotherapeutic conundrums etc. The deity is sought on several grounds. Not just for worshipping and spiritual purposes but also imbibe psychological therapy of people, general counselling of social setting, religious paradigms and controlling of hierarchical hegemony within the family. The deity is characterized into three aspects, first, being the

primal goddess of the village and there is an absence of primal Hindu gods and goddesses. However, the modern scenario observes the latter on several junctures. Second, the deity is seen as the first and foremost element before any ceremony, festive or ritual on the communal level. Third is the faith and belief with respect to the welfare and prosperity of the people. These aspects not only inspect what they literally mean but they also represent fear and 'being dominated' status. This structure creates an involuntary mental state of 'divine perturbation' around the devotees if in case anything is falsely followed. The shrine is observed as a sacred sphere of consciousness. Thus several times, the divine control of the deity reaches a point where the audience just asks for solicitation. When the goddess is invoked with an ascetic feeling, it develops a sphere of sanctified elements within and outside of the receiver's body (Eliade, 1959, 1964). Hauser (2008) provides a clear demarcation of such understandings. She describes:

"As the performance gets emphasized, singularity and individual body of the performer turn to the behaviour associated with the deity. Several times, it achieves semiotics and becomes normative" (Hauser, 2008).

In the shrines of these village deities, one significant element alongside the deity is observed, that is the Jaani (lit. Oracle). His agency is defined as one of the co – priests but he does not perform the tasks of a Brahmin priest. He holds a special position within the shrine of the Gramadevati. The role of Jaani is scrutinized into several aspects while worshipping the deity. Although he belongs to a lower caste, such as Mali (Gardener) or Bhandari (Barber), he is responsible to execute ritual performances for the client as a medium of the deity with specific purpose such as healing, animal sacrifices, trance performance etc., however, he cannot be classified as a Shaman (Nencini, 2002; Sharma, 2010; Kressing, 2003). There are also Brahmin priests working within the altar but they are primarily involved in Jajmaani duties. Brahmin priests have functions at specific points such as Homa (fire sacrifice) in order to initiate the fire invocation and evoke sacred objects of the dance (Schnepel, 2006). However, this essay progresses in inspecting the Oracle's agency and the Brahminic entity is not focused upon. During this initiation point of fire

sacrifice (Homa) and a client approaches, the deity's place is ready as a platform of ascetic rituals. This shrine of the deity is called as a Devi – Aasthana or Devi – Peetha. This whole process turns the secluded place of goddess into a sanctum of ascetic rituals. As per my understanding, the role of Jaani is within this sanctum is crucial as it symbolizes the blending of the ritual performances with all other elements in the shrine. Elsewhere, the Jaani is also addressed as a possessed healer and ritual performer (Guzy, 2014; Hacker, 2014) and is seen as the direct medium to the goddess. The Jaani during the Pusa Punei festival, as mentioned, begins the ritual procession. The assistants along with the Jaani help in accelerating the ritual by beating of drums along with the musical instruments like Changu Baja, Nissaana, Mohuri etc. (see Guzy, 2014) for creating an ecstatic environment. The Jaani professes a sung meditation and through such actions, the goddess is (-re) called in order to manifest the festival. While the rituals progress gradually, the Jaani integrates with the cognitive function of the devotees and to this, the devotees would acquiesce without any delusion. Often times, the clients seek the Jaani primarily for several domestic and social afflictions such as Quarrels over land, jealousy at another's success, abuse and exploitation of young wives, a conflict between the generations regarding inheritance of property, pressure on young people to do well in school, demands from newly married couples to have children etc. (Sax, 2009). Such tensions and conflicts are often consulted with an Oracle. These social occasions are one of the communal stage where such problems are discussed. However, a ritual for the respective matters can be arranged on a personal level but then it will cost a huge amount from a village member perspective. Different paradigms where the goddess is sought through the Jaani's performances are for cursing and evil eyes. Within south Odishan societies, such components within a village perimeter are very common and considered vital. For such matters, the village goddess is again approached in order for justice and peace. Nevertheless, for the goddess, it is the Jaani who indulge himself with the possession rituals and articulates the deity's voice making himself a medium for it. All these processes are confined within a particular territory of sacredness, which I argue as the 'centre'. I inspected how the Jaani

involves himself in several notions of conflicts that reduce the distance between the goddess and the client. For connecting the deity to the audience, a trance is performed during with the ritual. Or we can say that the trance is the result of ritual considering the ecstasy of the audience. I would say the Jaani is one of the prime element in the ritual diaspora. Nevertheless, the whole central entity here revolves around this one individual, i.e. the Oracle.

Aesthetics of Masked and Unmasked:

In December 2016, I visited Bhaliakhai village, Ganjam district during the Pusa Punei Parba. This ceremony, as the name suggests, Pusa (Odia: Pausha, lit. observed as the month of December according to Hindu calendar system) and Punei (Odia: Purnami, lit. the night of a full moon). The significance of this ceremony is observed within the local married females to pray Maa Baapangi for the overall prosperity of their families. Many times, ritual mechanisms are also observed in elderly widows as well. The worshipping of the house deity initiates with early morning prayers of the females in each household respectively. Hymns are narrated in front of the gods and goddess each household believes into and mornings offerings are done in front of the gods inside the houses, but no food offering is done. Generally, the whole process takes about 30 minutes averagely in order to execute all religious rituals if seen domestically or per house. On the day of the ceremony, married females would observe an Upawaas (Fast) i.e. no consumption of any kind of food till the prayers are done in order to manifest their dedication towards the goddess.

Participation of the female entity during the ceremony is observed to be greater than the male contribution. Starting from the cleaning of the altar on the house, worshipping the family deity and prepare the offering to be presented to the gods and goddess (Schenepel, 2006; Schombucher, 1999, Mallebrein, 1999). To the public discourse, females observe Pusa Punei for the prosperity of the family. However, sometimes such rational ideas are followed on by a secondary audience altogether and several teenage girls carry out the performances as they would say, "Paribarara Mangala Pai (For the prosperity of the family)". Several girls, by convention, are inspired by the performance of fast, the mere happiness of the performance or sometimes just for the 'divine invocation'. Many young girls

start following the performances without giving it a second thought. More or less, it narrows down to the fun element within the performance. Most of them participate for fun and to be a part of folklore culture. The occasion attracts many onlookers as the chanting of songs and imitative plays not only induce a religious spirit but also joy, pleasure, laughter and a feeling of communal togetherness (Hauser, 2012). The preparation for the occasion commences from the previous night. These activities are observed as collective work by the female members of the household, as all females take part in commencing the preparation of Bhoga which would be offered to the village goddess the next morning. The village deity has the higher social value and is served as a prime deity. Hierarchically, the village deity comes first if seen and then the house deities. The Bhoga will be offered to village goddess first and then the secondary gods and goddesses. Next morning, as everything is ready for offering to the deity, married females, young girls and relatively elder women in the community meet at a specific point within the village and collectively move to visit the shrine of the Maa Baapangi. One significance of this festive is it can be observed without any age – restrictions by women and for any specific purpose. I would like to say that here, a mother prays for the prosperity of his son and his welfare, a newly married wife prays for her family etc. Although these prayers, many times, turns into emotive semiotics and thus transforms to normative.

As the women gathered, I thought most of these women to be from the lower class. To my surprise, most of the women who joined for the Puja were actually Brahmins. Moreover, few of them also belonged to a lower – caste than Brahmins, i.e. Khandayat (warrior) caste and some from even lower, such as Badhei (Carpenter), Maali (Gardener) etc. Several women belonged to even lower caste such as Dhoba (Washermen). Although this was not a matter of dispute as many in that neighbourhood followed their own Pusa Punei anyways. Each female dressed in a clean Saree and groups of women marched along in groups of 5 and some as 10 to 12 together. One of the crucial aspects of understanding the ritual procession is the journey of these females from the house to the shrine premises. The conversation within these groups ranged from Kumuti's daughter's marriage to how much Padmanabha's son earned in the city. Between these

two junctions (the house and the shrine), many women had already thought about the desires and prayers that they will seek from the goddess. Few women were busy in arranging their offering plates whilst other few were busy in discussing their household chores and current issues. On a bit inspection, I realized that most of them had Maanasika for the Puja day and they are not wearing any footwear to the shrine from the home. That is one way of invocation to the goddess. Since the village deity's altar is at the outskirts of the village, they had to walk about a kilometer and they completed the whole walking barefoot.

On reaching the shrine, all the female members dispersed within and dissolved in a chaotic form. Inside the shrine of Maa Baapangi, it appeared to be more of a contemporary deity rather than what I assumed to be in a more conventional way. The sculpture of the deity was structurally sound, finely coarse with soil and clay yet a very colorful emblem of divinity. Visually, the shrine was a contemporary architecture and can be seen as a well-constructed and fancy premise. Coloured with light blue on the three-sided wall, the front side witness to be just the gate of the structure with a recently constructed flat – roof with tiled floors. Built next to the altar, a secondary room, where all the objects for ritual performances and food ingredients for the priest to offer are stored. The altar, more of a block-shaped single room, displays the goddess. In the main room, the goddess Maa Baapangi is settled on the platform. The goddess rests on a concrete pedestal, a foot high and cemented properly. Beneath the deity, a cotton cloth is placed in order to protect the figurine from any damage. Narratives and relative correspondence with the villagers described that this deity was established in a very crude process. Alongside the primary figurine, there were two more statuette figures and recognized as the sisters of Maa Baapangi. A local axiom suggests that these other two statuettes, Maa Seetalaa and Maa Mangalaa, are there for the companionship of Maa Baapangi, so that she does not feel lonely and her sisters always assist during her yearly Jatra.

Although there is no ground rule for 'who can worship the divine form of the goddess' and there is no discrimination observed here on the basis of caste, creed or social hierarchy but it can be witnessed when the deity is being worshipped on a

Peetha. Ceremonies like Pusa Punei include unison of the whole community and observe mutual help and support during the ceremonial preparation. Several rituals during such festivals are observed for healing prospects as well (Sax, 2009; Hacker, 2014; Hauser, 2008). However, the client and performer during a ritual are co-relative. For example, during a ritual, the performer shifts to a mode of trance. During this period, the client and the performer share a relationship of master and the follower respectively. Whereas, when the client describes his/her problem, the performer plays the divine body in order to attain the maximum understanding. Recent ethnographical theories suggest that the performances consist rituals for a variety of interpretations (Hauser, 2012, Schnepel, 2006). It is significant to understand the ritual as a mode of action rather than a type of event that conveys meaning (Cheal, 1992; Turner, 1988). Such ritual ceremonies, like Pusa Punei include 'elements of sacred conscience' (Durkheim, 1912; Eliade, 1959). Construction of such religious paradigms includes different participatory rites. These internal rites form an invisible motion of devotion and belief. When such ceremonial rituals take places, the client initiates with a cause or a reason and resulting in increasing the normative. The client at this point is surrendering herself to the divinity and develops a void of religious conscience within the self – body. Such practices in different parts of India have been extensively studied with respect to ritual healing (Keul, 2017; Sax, 1991, 2009, 2002; Nagarajan, 2018), shamanistic praxis (see Bawal, Joshi, 2014; Basu, 1995, 2010, 2014; Ishii, 2013) etc. Nevertheless, the conditions to approach the deity vary distinctively from person to person, both when socially as well as ritualistically observed. As suggested by Ajay Gouda of Bhaliakhai village in Ganjam district, during an interview that,

"There are other festivals such as Thakurani Yatra and Chaitra Mangalabaara, where our Jaani will look singularly to each person. If anyone has a problem in the family, regarding health or feeling of insecurity or any other issue, we will share it with the Jaani, or rather say the goddess."

Here, the relation between the client and the priest again takes a different observation. Ajay Gouda further highlighted about caste complexion on the same ground. He suggested that "You (as a Brahmin)

can drink water from the hands of Jaani (Oracle) but you cannot drink water if served by Mali." This statement marked the identity of an individual and his entitlement of restrictions within a social periphery. The characteristics of central and peripheral element observe an oppressiveness, initiating from former to latter. Herein, the peripheral entities of the castes in south Odisha not only restrict to Dalits or Sudras, but it involves a majority of individualistic identities such as tribal communities or 'Indigenous people' (Majumdar and Madan, 1956; Vidyarthi and Rai, 1976; Elwin, 1947), widows (Guha, 2011; Atwal, 2016) and referential outsiders or alien bodies, such as tourists or individual not belonging to the community.

The Idioms of Disguise:

The role of Oracle is significant within the shrine periphery. Firstly, as mentioned, the trance – performance for the ritual procedure corresponds primarily to the Jaani. Along with him, few individuals also assist him while the ritual progresses. Few of them would be setting up the musical instruments which would be used during the ritual performance and few help him in getting the Puja Samagri (ingredients from localities for the rite) etc. These assistants also profile a peculiar role in disguise as they also correspond the question form the client to Oracle. They shout, scream and repeatedly cross-question the Jaani while he is in trance. These assistants are also involved with the musical instruments and provide a full force and a vibrating environment to the ritual ceremony. They often tease the possessed body with provocative narratives and comments. These subtle activities act as the accelerator to the performing body. I anticipate that the assistants are one of the elements of sanctity and considered as a part of the centre although not primary. These subtle yet crucial elements initiate and regulate an internal socio-religious manipulation being disguised behind the cover of Jaani's performance while the ritual is in progress. They improvise certain methodological instincts to invoke an impulsive response from the performing body. They are subjected to manipulate the voice of the deity and filter it for the client's ordeal. The female counterpart of the male oracle, A Jaaniani, is also witnessed in the shrine periphery. When the ritual initiates, the Jaaniani is also one of the involved performers who attain the possession of the deity, while the Jaani prepares the Bhoga, smokes up

Jhuna, draws the Jhoti and sacrifice the animal. All these initiation rites are performed by the Jaani before he goes into the trance. However, after a while, the Jaani being a participant in the aesthetics, also joins steps of a possessed body accompanying the Jaaniani. The Jaani although initiates and authorizes the performance accordingly for the way his client seeks for but his assistants' form an elementary sphere of rigidity which bounds the ritual if it goes off – limits. The audience during such performance is again a symbolical part of the whole process. The ground rule in these societies' states that a Jaani is always the one who triggers the ritual and later, is joined by few more companions in the possessed state. Be it during a healing ritual, ceremonial connotations or individual invocation (Maanasika), the male entity is always signified with a respective role to follow. In this study, the centrality is observed in three elements. They are the deity, the Jaani/Jaaniani and the assistants. Every other elements is subjected to periphery such as music, devotees etc. Thus the Jaani/Jaaniani from the centre acts as a bridge between centre and the periphery. Several local beliefs suggest that the cults of embodiment and oracular performances connect the audience with the deity. Few studies critically inspect the mimetic performances and suggest that the divine performer concentrates and emotionally surrenders to the divine power (Hauser, 2014). Usually, they can recall the past events and there exists a degree of uncertainty as to somatic invocation of the divine. The following case study will show how the central politics within the shrine function works and how associative components with the deity and the oracle manipulate the ritual stigma. This manipulation of aesthetics in the shrine assimilates the belief of the audience. Nobody would argue the action as play acting and even without the sub – conscious transformation; the Jaaniani is worshipped as the goddess (Hauser, 2014).

Lakshmi:

Lakshmi lives her daily life by working as an agricultural labor in local fields. She and her husband are turned old physically and thus spend their time in spiritual activities and ritual ordinates. Every year during the Pausa month (during the month of December), residents in her neighborhood, conduct a Pusa Punei Puja by contributing

materialistically and financially. In the year 2016, the residents of Bhalikhai village in Ganjam district organized a common Puja in front of village deity. The females within the village territory, especially married women followed up with invocations which mainly consisted of welfare prayers of their respective families and community as well. Thus, in order to fulfill the vow in front of the goddess, a joint decision was made for a communal ritual ceremony in front of the goddess. It was decided that the local village Jaani, Subaasa will initiate and regulate the performing ritual and thus will be accompanied by Lakshmi. Lakshmi belongs to a Khadaala caste (a lower – caste as per the Hindu Varna system). She has been performing as a Jaaniani in the local village goddess temple of Maa Baapangi for 14 years roughly. She, without any hesitation, agreed to be the associative Jaaniani for the divine play. On the ritual day, she performed her daily routine early in the morning. At around eight o' clock, she arrived at the shrine of the deity. Although she was accompanied by Subaasa in preparing Bhoga. Followed by it, Subaasa prepared the Jhoti in order to provide a virtual platform for the deity to recognize. Meanwhile, the initial prayers by the married females at the shrine are done after which they would offer fruits and Maanasika offerings to the deity and here the initiation of the invocation ritual takes place. Here now on, the Jaani would create a mystic atmosphere with the smoke of Jhuna and synchronizing his actions with the beating of drums. The recitation of the hymns, the females will corroborate with folk – songs and now the Jaani will call the goddess for embodying him. This performance is very similar to other studies done by various scholars regarding Pot Bearer, Tuesday Pageant (Hauser, 2014, 2012, 2007), Boil rituals in western Odisha (Guzy, 2013, 2014), Danda Nata (Schneepel, 2006), Hingula Maa Jatra (Mallebrein, 2014). As the Aavaahana of the deity progresses, the smoke of Jhuna grows, the ritual intensifies. The assistants along with the Jaani beat the drums with all their might. The synchronizing beats of Dhola along with the rhythmic support of Nissana, Mohuri and Changu Baja (Guzy, 2014) create a platform for the divine play to enact. This year, during this ritual ceremony of Pusa Punei, within the shrine as Lakshmi was also a component of the ritual, thus she also got possessed by the deity, although even before Subaasa. Such visual actions are part of the divine play as she surrendered herself first to the goddess

while Subaasa was accelerating the ritual. It can be said that the concentration and focus of Lakshmi were at its peak (Guzy, 2014). The possessed body can be identified with the gradual yet identical dance steps (Prevot, 2014), along with trembling and shaking of the body. Lakshmi has done these activities previously quite a time and people believe that the deity is immensely fond of her. While the trance progressed, Lakshmi, as the voice of the deity, started narrating tales of the village in a faintly and panting voice. Ranging from current issues, familial profits and losses and health prospects. Her appearance during the ritual seemed distinctive from other. She carried an earthen pot over her head in which is filled with food ingredient and similar compounds while on the other hand, she held a bundle of peacock feathers as the Maa's blessing utility. Nevertheless, this initiation moment also formed a surrounding of the sanctified shrine and thus involved the females of the village as a part of audience among the ritual performance.

Many of the married females offer prayers to the deity. Lakshmi, while in trance became the voice of the deity and now she was ready to answer the females who had a complaint and were seeking help from the deity. Most of the women knew the problems that would be put in front of the deity by other women. Thus questions were communicated verbally to Lakshmi. First was of Usa Swain. I was accompanying one of her neighbours as my familial relative and thus she transcribed me the scenario as Usa approached Lakshmi for her matter. Usa had a very baffled complaint. She came with her daughter who attained the age of 16 years but she is having irregular menstruation cycles. Here, while she addresses her daughter's problem to Lakshmi, she kept two very important things while describing the problem. First, that she cannot address this issue in a loud voice or through someone (here the agency of the person is very important within social context). She has to confine it within herself, her daughter and the deity, as reason being menstruation is considered a symbol of polluted woman and one forbidden subject to talk within social discussions in south Odisha. Secondly, since male performers were also present, she tried to keep everything straight within female ears and not to overemphasize the issue on a social platform. Usa, then slowly approached Lakshmi with her daughter and whispered to Lakshmi. It was difficult for Lakshmi to understand

yet she grasped the meaning in it. Lakshmi smiled and replied in a panting – loud manner, "There is nothing to worry about". The statement took everyone by surprise. While she is performing the trance, she expressed the alter – state voice again that, "Usa, for the benefit and better health of your child, you have to sacrifice 7 cocks in order to appease me."

I knew Usa as a person who was living in the neighborhoods. Though my familial relations are passable with theirs, thus it is not a big secret that Usa's daily life is hardly sustained. Now, she has to sacrifice 7 cocks in the shrine of the deity. While, Lakshmi is in subconscious trance phase and alter – state of mind, she is acting as the deity herself. Usa cannot refuse or question the command of the deity. She gradually approached again to Lakshmi and asked for a negotiated deal. However this time, she approached through Lakshmi's assistants. She uttered, "I cannot afford 7 cocks. Can I appease Maa with 3 or 4 cocks?" As one of the assistants took charge of looking after her problem, he declined the deal first. But after a few convincing efforts from Usa to Lakshmi and her assistants, they agreed to 3 cocks, Maa'nkara Puja and a Boda Bali (goat sacrifice). It was a satisfactory deal for Usa and she nodded positively. Usa had a belief in Lakshmi while she was in subaltern state. The consciences work in a mutual pattern as it is not what Lakshmi is saying but the goddess. The actions and dance of Lakshmi cannot be seen as fake and the subtle element of belief constraints an internal value of social diaspora in the form of Maa'nkara Chadaka Padiba (the terror and wrath of the goddess). After the possession and Lakshmi came back to normal consciousness, I showed her a few photographs which I took during her trance. She was not ashamed or scared but rather happy with the fact that she was lucky enough that the goddess chose her as a medium.

Many times, when a ritual anticipation gets complicated, patience-less or sought for immediate action, the assistants often approach the goddess and suggest the client for a Jantaala. Jantaala is a ceremonial feast which is dedicated to the goddess in order to attain the immediate prosperity. However, it hurts the pocket of the village members

at a substantial level and thus is not feasible many times. Jantaala can be said as a key element for negotiating discourse in a way that the number of food specimens it includes is in large amount. Thus the remaining food and rest of the ingredients are generally enjoyed by the Brahmin priest, Jaani and his assistants. This makes an easy passage of divine body to appease the deity regarding the client's ordeal. For example, it is quite often seen that when a married couple is unable to have a child for a longer period than desired, they visit the shrine of the goddess. Elderly females of the house also intervene themselves in such pragmatics and organize a Jantaala for seven persons, as per the advice by the divine body. Increase in negotiation terms always compels an individual to rectify the problem he has sought the deity, once and for all. Thus, in the extremely serious situation, the divine play turns into a delusional agreement. Such agreement performs a negotiated deal of 5 Boda – Bali, Jantaala, a certain amount of money etc. in this way it is seen in the public discourse that these assistant are always looking for something extra than what the deity is actually seeking. Many times, advice comes in a way as they ask for a Jantaala even when the Jaani hasn't asked for it. Such narrative signifies an overemphasized and manipulated tentative. Amplification of ritual discourse in such a way creates a mixture of terror and faith for the deity. Married women generally take this rationalized social quotient in a serious manner. Other criteria that come with such thought process are non – verbal gestures to the deity, Osa Brata done by females and not following it sincerely, stressing of divine manipulation etc. These criteria are believed to have a dreadful outcome in the form of sorrow, scarcity and death, if not observed truthfully.

Centrality and Subaltern Ascetics:

Central and Peripheral relations forms an intrinsic factor for understanding social organization in South Asia. Such social values always see the marginal focus of certain social praxis such as vegetarianism and asceticism for the spreading of politico – religious power in the centre and the periphery (Carrin and Guzy, 2012). As I try to capture the centre and the periphery theory in religious context, it has been critically analysed in Indian retrospective with the context of kingdoms,

ruling state and polity (Carrin, 2002, 2010; Rousseleau, 2012; Otten, 2008). Harald Tambs – Lyche (2012) particularly inspected the conceptual notion referencing it towards the multi – centrality of it as the political endowment corresponding to Hinduistic hegemonic memocide. He argued keeping in mind about the kingdom regulations where small kingdoms represented the kind of centrality through assertive rituals. These rituals have to be showcased accordingly so that the higher ranking kings to grant authoritative power and courtship to the small kingdoms. The small kingdoms are the componential periphery units which combine in multiple numbers to form a peripheral demarcation. His narratives argue about embodying a cosmic pillar of ritual mimesis for the acceptance of ascetic values in the smaller kingdoms. His theoretical distinction suggests that caste which holds the power and authoritative values (Rajputs, as in this case) holds the central position within the social milieu. Nevertheless, these groups form an amicable relationship with the tribal communities in the nearby locations. These tribal communities regulate with a form of secular governmentality and act a smaller kingdom in this context. He connects the theory as such communities close to the respective kingdom of Rajputs may be dominated by the authoritative powers and aristocracy of the central unit, the Rajput king and by themselves, have a very little autonomy. The peripheral entities involve peasants, markets, the accountable economy, agriculturalists, merchants etc. of the allied yet smaller kingdoms. The centre and periphery concept finally points out the geo – centrality component within a definitive boundary of enactment. According to him, the 'micro-regional' may contain a multi-case' centrality system and thus depicts the control of larger entity over the smaller ones, thus making the agriculturalists and merchants as the peripheral distributors whereas the kings hold the throne, resembling their centrality. Similarly, corresponding such theoretical ideology in this discourse, the little kingdoms are resembled by the audience and the other peripheral elements, who have a very figurative say during the performances whereas the larger kingdom granting the authority of performance is the priest and his fellow supporters. Nevertheless, assertive behavior of the higher authority is functioned in a very amicable way

however, the power distribution and regulation is not really the same.

The central figure in some case can be the deity (Guzy, 2014; Hacker, 2014), sometimes ascetics, cultural change and religiosity (Guillaume – Pey, 2012) and in some case, the normative related to it (Rousseleau, 2012). Raphael Rousseleau (2012), describes his observation to figure out the central and peripheral distinction in the Chaitra Paraba festival in Hadaput village in Koraput district of Orissa. Tribal communities such as Bondo, Saura, Gadaba, Kondha, Kolo etc. form a cross – trajectory layer of ritual specifications. Each tribal community has its particular performative and significance according to it. Here, in this case, the point of margin for deciding the centre and peripheral entities is the divine play in front of the deity, Hundi Devata. He peculiarly inspects about the ritual manifestation of the deity during the festival and the centrality cognition within the social juncture. Despite the establishment of deity as socially central, the peripheral elements are not developed within the society but from external sources. These elements include nomenclature, ritual procedure etc. He further figures a schematic structure about the authenticity of peripheral significance and argues that the Hundi Devata will hold the centrality. The embodiment of ritualistic periphery possesses a cosmic pillar of self – identity, with respect to the priest. The peripheral entities, however, provide an integrative cosmic pillar to the performance of the divinity during the festival. The peripheral elements comprise of several crucial symbols and elements of sacredness such as the Kasi (Young) tree, the pole made out of the trunk of the tree, the priest (as in this case, Perma/Sisa/Jaani) and the deity herself. The deity is seen as the central figure within an ascetic cosmos. He progresses further in arguing that these components form a crucial portion of intrinsic and extrinsic motion, within the centre. Thus ritual performances are often with an analogy even on a unitary level. The priest and the audience are always seen on the same ground yet analogy breaks with an invisible wall of segmented characterized dissolution, which is noted by Tambiah (1985a). S.J. Tambiah argued about segmented polity. He argued that south Asian states should be termed as a 'galactic polity'. Like Uwe Skoda (2012) has mentioned about Tambiah's concept in his article *Texts, Centres and Authorities*:

“Kingdoms... {...}.. were arranged according to the galactic scheme, and this scheme was elucidated and analysed according to some key concepts. The most central concept is Mandala, which pillars its centrality by surrounding its satellites in multiple context for example: structure of gods, pantheon of spatial deployment of a capital region, order of social rulers, gods, provinces and further devolution of graduated power based on decreasing autonomies” (Tambiah, 1985a).

Thus Tambiah (1985a) improvised on a concept of 'centre oriented space'. His theory conceptualize that the centre stands ideologically for the whole. Although, such theory of 'little kingdoms' and 'autonomous monopoly' was designed prior to kingdom rule, pre – modern states and kingdoms (Skoda, 2012: 115) but when it comes to religious speculation, similar notions come into play where the little kingdoms are represented by the village goddess temples where the priest and his assistant performers (say prince and nobles as in Tambiah's terminology) enjoy the independent and legitimate autonomy. Nevertheless, the deity develops a centre oriented space and the whole revolves around it. Re – examining such theory to a religious pragmatics defines certain manifestations of these 'kingdoms' and it reveals an insight of a socio – religious milieu.

Conclusion:

Similar theoretical perspectives are often observed in a narrative form of ritual discourse. However, as I already presented the performing body, i.e. the Oracle, is also a part of sacred conscience and thus has a recognized centrality, although not primary. Around the primary central element, i.e. deity, the manipulation of the subaltern conscious and cognitive reaction of the audience is primarily handled by such oracles. The central and periphery theory revolves around a singular pivotal point, the Oracle. He enjoys the rhetoric if seen in classical Hermann Kulke terms of 'a symbolic declaration of independence' (Kulke, 2001). Such independent performance force the audience figuratively to respond to the articulation and it manipulates the whole cosmic system of the periphery into a vital junction. To my understanding, there are two prime reasons behind such actions of these secondary participants. First, they are allowed to the centre, even though they belong to the periphery. This gives

them a freedom of narration and control the religious discourse. Second, they catalyze the divine play's utility margin by collecting kinds in form of fruits, rice, vegetables, utility tools, kinds etc. from the people who wish to offer to the goddess and describing the act while the other Jaani is still performing. Rousseleau (2012) suggest with the context of social multiplicity that it is not a problem. In this case, the centrality of the deity provides an 'internal' autonomy for the priests and the while following it, the peripheral components such as the audience, obtain an image of civilized and blessed face in the 'outer' world. Obtaining such an image is important as it creates a shield of a religious dichotomy of being dominated and feeling of asceticism. Thus through such manipulative actions, it is easy to articulate the client's issue as a subversive social discourse. Understanding the theoretical paradigms as described by Tambiah (1985a), Guillaume – Pey (2012), Rousseleau (2012, 2005), which corresponds the state – politics and social hierarchy, it illustrates a very similar mark when the centrality and its functions are observed in religious context in South Odisha. A central figure has attained the power impulsively and anticipates it to the social level penetrating the threshold between the center and the periphery.

A last note would illustrate the assertion. The central and the peripheral entities divide the society by an ascetical symbol. The mimetic performances are surely an easy medium for the socio-religious manipulation. It develops a void of assertive conscious within the central performers as they symbolize a direct source to the goddess. Thus the void creates a hierarchical notion of religious autonomy and acts as the flux of religious politics. The instinctive controlling and social manipulation through a religious medium will progress till the time the goddess is seen as the central figurine. It will be difficult for coming generation to include an apostasy normative within the working model of shrine. The central elements such as the Jaani, Jaaniani, Maa Baapangi, the shrine etc. will continue to grow as a religious symbol and retain the devout powers within the central metabolic. The Socio – religious manipulation? It expands its horizon gradually with the time and covers the whole periphery and beyond it.

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Factors Affecting Mental Health: A Review

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Abstract

According to the World Health Organization (WHO), mental health is a state when a person can work productively for his or her community. Not only biology but also culture plays a crucial role in determining the mental state of a person. Along with the culture of a different society, factors like self-esteem, feeling loved, confidence, family break up, bad behavior, physical health affects mental health a lot. Association between sociocultural factors like education, political organization, support of kin members in a difficult situation, poverty, intimate partner violence, domestic violence, war conflict, differences between genders, marriage at low age, etc. and mental health is studied separately. In this article, an overview of some burning factors and its association with mental health has been described briefly. Research papers published from 2000 to 2019 has been included in this review article. Google Scholar, Jstor, PubMed, Google search engines were used to identify the applicable study.

Key Words : Domestic violence, Mental health

Introduction

Mental health is an integral part of health, but has received inadequate attention by policymakers and also by society in general (Jorm, 2000). Mental disorders comprise 14% of the global disease burden (Prince et al., 2007), and an increasing obstacle to development in countries around the world. Force to do something, comparison with others, and when the pressure becomes more than the resource; stress arises. Not all of these stressful situations lead to different mental disorders (Scalar, Garua & Gabriella, 2005). But stressful situations like poverty (Sengupta & Benjamin, 2015), sexual violence (Rai & Rai, 2019), low-income working mothers (Travasso, Rajaraman & Heymann, 2014), natural calamities like a cyclone (Kar et al., 2004) create mental disorders. A study was done across the states of India to know the burden of mental disorders from 1990-2017, and it reported that, in 2017, 197.3 million people suffer from mental disorders including 45.7 million depressive disorders and 44.9 million anxiety disorders. A significant correlation was found between depressive disorders and suicidal death at the state

level for females ($p=0.0009$) and males ($p=0.015$) (India State-Level Disease Burden Initiative Mental Disorders Collaborators, 2019).

Culture and mental health American anthropologist Margaret Mead while her study in Samoan society gave a theory in her book "Coming of Age in Samoa" that culture has a dominating force in psychosexual development in the youth of the community. Different cultural syndromes are valuable because it accelerates different culture-specific form of suffering (Hinton, & Lewis-Fernandez, 2010; Kaiser et al., 2014), which affects mental health. A Study was done among Haitian (WHO/PAHO, 2010), Australian aboriginals (Parker, 2010), Asian Americans (Gee, Akutsu, & Shih, 2010), Indian (Subudhi, 2015) demonstrated that culture plays a major role in describing mental health. Cultural pattern predominating in South-east Asia maintain a lower position of women socially, and economically. Their mobility, self-esteem, self-image and even if their identity depends upon the male members. Restriction on self-expression, lack of empowerment, and both financial and economic dependence has a pronounced impact on women's

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mental health (Naiz, & Hassan, 2006). An ethnographic study was done among the women in North India to focus on the problem of tension and its relation to the cultural syndrome. Symptoms like rapid-onset of anger, irritation, and sleeplessness, reported by people have high scores on the Hopkins Symptoms Checklist-25 for depression and anxiety. This problem of tension is linked to events such as domestic conflict and the stresses of modern urban life (Weaver, 2017).

Poverty and mental health

A study was done in Northern Californian (Mulia et al., 2008), Indonesia (Tampubolon et al., 2014), and Delhi (Trani et al., 2015), Ludhiana (Sengupta et al., 2015) showed that poverty is linked to mental health problems. Few types of research demonstrate that single mothers having low income showed a high level of depressive symptoms (Bogard et al., 2001; Eamon & Zuehl, 2001; Gyamfi, Brooks-Gunn & Jackson, 2001), in African and European American mothers depressed mood is associated with loss of materials or threat of their loss (Ennis et al., 2000). Another study was done in women of the middle class and general population in Northern California country to know how stressors, social support and the problem of drinking are interrelated and it was found that disturbances in the neighborhood and stressful life events increase the problem of drinking, and a little evidence was found that social buffering helps the women in poverty to reduce the effects of stressors (Mulia et al., 2008). A study was done in Ludhiana to know the prevalence of depression and associated risk factors in the elderly population, 3038 population was interviewed in a cross-sectional study and from that 8.9% showed depression which was associated with people suffering from poverty (Sengupta et al., 2015). Research has done among forty-eight low-income working mothers in Bangalore, where the qualitative approach was taken to carry out the study and it was found that those women experienced extreme depression, with the thoughts to do suicide and suicide attempt in some cases (Travasso et al., 2014).

Social support and mental health

According to Emile Durkheim, in his book, "Suicide", social isolation is linked to reduced psychological well-being. Social support affects mental health especially of women (Mulia et al.,

2008), elderly, patients, workers, and students (Harandi, Taghinasab, & Nayeri, 2017). A study was done in Pakistan to know the depression among pregnant women in association with social relations and social conditions. Both qualitative and quantitative and quantitative methods were used in the study. In-depth interviews were done with 79 pregnant women from both public and private hospitals using the CES-D scale. It was found that increasing age, less education, husband, in-laws, household work, and pregnancy symptoms are significantly associated with total CES-D scores, which show the importance of social relationships in determining the depression in pregnant women (Kazi et al., 2006). A study was done among the police personnel of Uttar Pradesh to study stress, social support, coping, and mental health. 300 police personnel were taken including 100 constables, 100 inspectors, and 100 officers from six districts of Uttar Pradesh. Occupational Stress Questionnaire, Brief COPE Scale, Social Support Scale, and Mental Health Inventory scale were used to carry out the study. It was found that the inspectors show a high level of occupational stress and a low level of active coping which can be improved by modification of the work environment (Singh et al., 2019).

Unemployment and mental health

Job insecurity (Kim et al., 2017), Unemployment is an underlying factor for mental illness like depression, distress (Breslin & Mustard, 2003; Bijlsma et al., 2017), Suicide (Mortensen et al., 2000; Qin et al., 2000; Lundin, & Hemmingsson, 2009). Levels of mental health problems vary due to unemployment in different genders (Piccinelli & Wilkinson, 2000; Qin et al., 2000). Unemployed males are more prone to mental illness than females (Artazcoz et al., 2004). An association study was done between unemployment and depression in Germany among 4842 participants. The employment status of the participants was divided into three categories: being employed, being unemployed receiving entitlement-based benefits, and being unemployed receiving means-tested benefits. Depression was evaluated by using the Center for Epidemiological Studies Depression scale (CES-D), and it was found that unemployed persons receiving means-tested benefits showed a high level of depression (Zuelke et al., 2018). A study was done from the census of India, 2011 to examine the role of gender, age group

and place and its relation on the employment status of persons with self-reporting of mental illness (SRMI) and it reported that persons with SRMI reside in rural areas (68.6%), are of age group (15-59%) and are males(57.51%) who were unemployed(78.62%), which was significant in relation to gender(Ramasubramanian et al., 2016).

Domestic Violence and mental health

Intimate partner abuse, family violence, wife-beating, battering, marital abuse, and partner abuse are international problems known as domestic violence (Campbell, 2002; Kurg et al., 2002). From various studies, the occurrence rate of domestic violence in India is likely to be within the range of 18%-70% (Hassan et al., 2004; International Clinical Epidemiological Network: Domestic violence in India, 2000). Numerous studies all around the world had demonstrated that domestic violence affects mental health (Kurg et al., 2002; Trevillion et al., 2012), especially in case of women (WHO, 2005; Coker et al., 2000; Ferrari et al., 2016; Garcia-Moreno et al., 2006; Ellsberg et al., 2008; Hegarty et al., 2013) and children (Wolfe et al., 2003; Kitzmann et al., 2003). A study was done among the women of the United Kingdom to know the association between severity of abuse and the mental health state and it was found that symptoms of mental illness increase in small stages with the increasing severity of Domestic Violence and Abuse (DVA). Women exposed to DVA show the symptoms of depression, high level of anxiety, and especially PTSD (Ferrari et al., 2016). Different studies done in Chandigarh (Singh, 2013), Delhi (Vachher, & Sharma, 2010; Sharma et al., 2019) showed the declining mental health of women facing domestic violence. Sharma et al (2019) studied among 827 married women from Delhi. Cluster sampling followed by systematic random sampling was used to carry out the study. By using a Self-reporting questionnaire and in depth-interview it was found that 25.3% of women who are facing domestic violence in terms of physical and sexual violence show unhealthy mental status and suicidal tendencies were more in comparison to women not experiencing violence.

Gender and mental health

The time of onset of mental disorders and the number of factors that affect the risk or susceptibility

differ in response to gender (Astbury, 2006). According to the WHO, inequalities experienced by the women are lower rates of schooling and employment, less pay for similar jobs, leadership positions, and different types of psychosocial problems. These inequalities smooth the way to increase the risk of mental disorders in women (WHO, 2014). Health disparities have also seen among lesbian, gay, bisexual, and transgender populations (Meyer, 2003; King et al., 2008; McCabe, 2009; Bostwik et al, 2010). A study conducted among sexually minor adults, from which 34 lesbian, 40 gay and 71 bisexual and 24 others to know the emotional regulation behind discrimination and level of depressive symptoms. Caucasian participants were 86.4% between the ages of 18-30 years. The result reveals that the act of reappraisal showed a great effect on depression in sexual minorities (Brancamp, 2018). Study in India related to women's mental health showed that People in India are aware of mental illness and Women as living in the Patriarchal society shows the image that they have to do the work related to home, family and society expects them to do so which is, however, a stressor for women (Pattnaik, 2018).

Conclusion

The reason behind mental illness is not only biology, as it is proved by renowned anthropologist and sociologists like Margaret Mead and Emile Durkheim. There is no focused reason which can be particular for mental illness. Although poverty, social support, unemployment, violence, gender-based discrimination are some of the main factors that pave the way to mental illness, besides these factors other problems like war conflict, a competition to be better, physical ill-health, low socio-economic status, addiction adapted by the family member, death of family member, divorce etc. also leads to mental illness which could be further studied through critical interpretation.

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An Ethnographic Note on the Chaudhari Tribe of Southern Gujarat

Priyanka Khurana

Abstract

The present paper reports the ethnographic profile and genomic insight of an Indo-European speaking Chaudhari tribe of Southern Gujarat. 25 villages from 06 blocks from Surat and Tapi districts were selected for the study. The data were collected using a set of ethnographic techniques viz., observation, informal interviews with the villagers and in-depth interviews with the key informants in the community. The socio-cultural attributes are presented along with findings from the genomic studies which show the genetic uniformity of Chaudhari tribe with other tribes of Gujarat and Dravidian tribes of India. The study also reveals underlying population sub-structure dynamics among them.

Key Words : Chaudhari Tribes, Gujarat, Ethnography, population sub structuring.

Introduction

Ethnography is defined as 'the recording and analysis of a culture or society, usually based on participant-observation and resulting in a written account of a people, place or institution' (Simpson & Coleman, 2017). Anthropology and ethnography are so intertwined that together they have become a basic premise for the anthropological epistemology. Ethnography offers the understanding about the society or social situation which forms the premises for testing hypothesis or generating theories. It is both inductive, open ended and applies multiple research methods to gain insight on human social phenomena and culture. Ethnography is today used for both the actual fieldwork during which the anthropologist collects material and the subsequent text- an ethnographic account. This present work attempts to use ethnography in later sense and try to highlight the current social and genomic understandings on the Chaudhari tribe of southern Gujarat.

Method

The present work was a part of DBT sponsored project entitled "Genome diversity among the tribes of the Gujarat". Under the project DNA samples along with ethnographic accounts was collected to understand the similarities and disparities among the tribes of Gujarat viz a viz other populations of India. A total of 25 villages from 06 talukas/ block from

Surat and Tapi districts were selected based on multistage sampling used for DNA data collection. The same procedure was applied to conduct ethnography. The present study ethnographic notes are based on the field observations, informal discussions with the villagers and in-depth interviews with key informants. Standard Anthropological methods were followed during field works (Pelto & Pelto, 1978; Bernard, 1988). Ethnographic data was collected to understand the history, distribution, population structure as well as to understand the day-to-day life of Chaudhari community.

Ethnographic note on the Chaudhari tribe

Chaudhari is one of the 29 notified Scheduled tribes (STs) of Gujarat. According to the Census of India (2011), population size of the Chaudhari population was 2,82,392 constituting 3.80% of the total ST population of the state. The term "Choudhara" is also reciprocally used to denote Chaudhari community. During 1961 Census, Chaudhara and Chaudhari community were recorded as independent groups. This fact is well known among Chaudhari community and people of the Chaudhari community claim that both Chaudhara and Chaudhari constitute the same tribal group. They believe that the term Chaudhara is synonymously taken for one of the Chaudhari subgroups namely Mota Chaudhari.

Chaudhari are mainly distributed in Surat district of Gujarat. Out of 25 talukas of Surat district (of pre 2007 division of Surat district), six talukas namely, Mandvi, Vyara, Umarwada, Mahuva, Mangrol and Songadh have the prevalence of Chaudhari population.

The records pertaining to Chaudhari tribe of Gujarat present varied number of endogamous divisions among the tribe. According to the 1961 Census, Chaudhari tribe has nine endogamous divisions viz. Bharutia, Chantala, Chokapur, Takaria, Valvi, Santala, Mota, Nana and Bonda Chaudhari. According to Shah (1964), Chaudhari tribe is subdivided into five sections namely, Nana, Mota, Valvi, Tekaria and Bonda Chaudhari. Bhatt (1985) also documented the subdivision of Chaudhari tribe into five endogamous subunits namely, Nana, Mota, Valivada, Bonda and Pavagadiya Chaudhari. Singh (2003) presented the segmentation of Chaudhari community into three endogamous divisions namely Pavagadia, Naladri and Valavda Chaudhari. However, the contemporary population of Chaudhari tribe considers the above mentioned subgroups as synonyms for the four main endogamous subdivisions of Chaudhari group. These are Nana, Mota, Pavagadhi and Valvi Chaudhari.

Various accounts exist about the origin and affinities of Chaudhari subgroups. It is said that originally Chaudhari tribe existed as a single tribal unit. A cow belonging to Chaudhari family died and its corpse was carried outside the village by two brothers, the elder Mota and the younger Nana Chaudhari. After the disposal of the dead, the elder brother did not observe the obligatory customary ablutions and only sprinkled water on hands and feet. The descendents of the elder brother were hence called "*Chatala* or *Santala*" which means "sprinkle with drops". The descendents of the younger brother (Nana), who had immersed his body in water according to the customs, considered themselves as "*Chokhapur*" which means "the pure ones". This difference in the cultural practice led to the division within Chaudhari tribe.

The term Takaria, Rvalia, Naladri are interchangeably used to refer to Pavagadhi Chaudhari. They also have a story in relation to their origin. It is said particularly about the Chaudhari of Mahuva taluka that they were once carriers of

Chavda ruler who ruled over Champaner-Pavagadh region in North Gujarat (present day Halol taluka, district Panchmahal). Pavagadh came under the control of Kichhi branch of Chauhan Rajputs, around 1300 AD, who ruled for 184 years. Patai Rawal was the last Kichhi ruler who was defeated by Mahmud Begada, the Sultan of Gujarat in 1484 AD. Following Muslim invasion, many people fled to south Gujarat and settled in the vicinity of Chaudhari tribe in present day Mahuva taluka of Surat. Legends also claim that they married among the neighboring, local Chaudhari women and started recognizing themselves as another subgroup of Chaudhari.

It is also said that the people from Pavagadh who fled and established permanent settlement in Mahuva district, helped Peshwas to fight against Bhils who were the local rulers. As a reward to their service, they were given piece of land named *Naldhara* region. The *Naldhara* region included 6 villages. Since these people owned the land and also aided in administrative work they were given the title of Chaudhari, meaning someone entrusted with the duties of administration. The epic stating this is famous by the name of "*Naldhara Vistar*".

The origin of Valvi Chaudhari on the other hand remains enigmatic.

Both Nana and Mota Chaudhari are numerically larger sections while the others are limited in size and restricted to the villages of Mahuva and Vyara talukas. All the subgroups were observed to have lots of similarities in their way of living and customs. However, evidence of Rajput affiliation can be witnessed in the death rituals of Pavagadhi Chaudhari. This indicates that their connection with Rajput communities of Northern Gujarat is not so improbable.

The community was involved in the movement for independence under the prominent national leaders like Mahatama Gandhi, Sardar Patel and others. They have been actively participating in the political affairs of the state. Through political activities, they have had a close interaction with several communities. At present, the community has a number of political leaders and social workers.

Chaudhari is primarily a farming community. Agriculture is the main occupation and the major economic resource is the land. The community has combination of both land owning and landless

groups. The system of tenancy exists. The rental that a tenant has to pay for a piece of land is fixed by an oral agreement and the payment is referred to as "*Ganot*". It can be in the form of money or grains. Many people work as day laborers. Few people earn their living as tailors, carpenters, masons and shopkeepers.

Chaudhari are both vegetarian and non-vegetarian. Under the influence of various Hindu saints, there has been a shift towards vegetarianism. They consume pulses of *Tur* (red gram), *Mug* (green gram) and locally available vegetables. Fruits are consumed occasionally. Mango and *Cheekoo* are in abundance in this region. They also take tea, milk and buttermilk. *Lapsi* (broken wheat grains fried with ghee and sugar), *Siro* (wheat flour fried with ghee), *Dudh Pak* (rice boiled in milk with dry fruits) and *Farsan* (commonly known as mixture) are consumed on various occasions. Though alcohol distribution and selling is prohibited in the state, local alcohol consumption is still prevalent. *Tadi* and *Khajuri* are used as country liquor.

The extended families are common. Nuclear families are also found, though in a smaller proportion. "*Kutumb*" is the local term for family. A married woman observes the avoidance relationship with her father in law, with the elder brothers of her husband and with other elderly male members. She keeps a veil in their presence and refrains from direct conversation. Joking relation exists with the younger brothers of one's husband and also with other male members of husband's age group. Similarly, a man has a joking relation with the younger sisters of his wife. All the sons get equal share of the parental property. Succession is through the eldest son. The Chaudhari do not permit proprietary rights to women. In family affairs, the opinion of women is taken into consideration particularly during marriage negotiations.

Most of the members of Chaudhari community profess Hinduism. However, a few have converted to Christianity. Particularly among the tribesmen of Valvi Chaudhari subtribe, high influence of Christianity as compared to other groups. The Christian converts follow Christian way of life but at the same time, they continue to participate in various festivals of the village. The members of the community worship their ancestors on the eve of *Divasa*, *Diwali* and *Holi*. "*Ahindo dev*", the god of

the hills is considered as their supreme god of the community. "*Himaria dev*" is considered as the protector of fields and crops. "*Morkhi mata*" is believed to look after the health of both human and cattle. "*Morkhi mata*" and "*Kiliodio dev*" are worshipped and are feared to cause various diseases like plague, fever, cholera and other diseases. Stone images of ancestors known as "*Khatrans*" are also worshipped. Amongst these images, one image is of "*Dabhio dev*" who is considered to be the protector of other "*Khatrans*". It is believed that a person who commits suicide or dies during an accident becomes a spirit. The term "*Dakan*" is used to refer to a woman who dies during an accident. If a pregnant woman dies during labor or immediately after giving birth, the term "*Vanti*" is used for her. Traditional sacred specialist is known as "*Bhuva*" who serves as shaman. Vows are of two kinds, "*Chkhli*" (clean) and "*Meli*" (unclean). In the former, the deity is worshipped with reddened rice, milk and ghee lamp and the latter involves the offering of a goat and cock.

All the subgroups were observed to have similarities in their ways of living and customs. However, people of the community who have taken up Christianity follow Christian customs.

Child birth takes place within the four walls of dwelling hut. The mother and the child are attended by the local midwife. When a child is born, its umbilical cord is cut with "*Boru or Darbha*" (sickle) and buried in the cattle shed. The period of pollution following childbirth is twelve days for the child and other members of the family while for the mother it extends up till forty days. On the fifth day of birth, "*Pachora*" is observed and the name of the child is selected by maternal uncle. On this day, five small heaps of rice grains are placed in the name of the goddess and worshipped for the health, fame and prosperity of the child. "*Mundone*" or tonsure ceremony is observed during fifth or seventh year. Same rituals are performed on the birth of girl or boy child.

The unique feature of the Chaudhari tribe is the absence of *kul* (clan) system. Endogamy is followed at the subgroup level. Inter subgroups marriages are prohibited. Intra-tribe marriages are also forbidden but high incidence of marriages with other tribes was noticed especially among Valvi Chaudhari. Monogamy is the common form of marriage though

polygamy is also permitted. The marriageable age for boys ranges from 18 to 25 years and for girls from 16 to 25 years. Mode of acquiring mate is through negotiation. Residence after marriage is patrilocal except in “*Khandalia*” marriage. *Ghar Jamai* marriages or marriage by service is called as “*Khandalia*”. In these, the prospective son-in-law serves the girl's father for fixed period of time. In such case, the couple settles at the girl's house after marriage. Such a marriage is considered respectable for the girl's father. However, the man who marries in this manner suffers a lowered social estimation among his fellow tribesman but still *Khandalia* marriages are not uncommon among Chaudhari tribe. The patri kins are known as “*Paghdī-ni-Sagai-vala*” and the ones on the female side as “*Kapadi-ni-sanga-vala*”. Symbol of marriage for a married woman is vermillion on the hair parting. The practice of paying the bride price is also prevalent. Marriage is solemnized at the residence of bride. The ceremony in which the bride and the groom are anointed with turmeric paste takes place three days before the marriage ceremony. A necklace of black colored glass beads is tied around the neck of the bride and the couple is taken to the kitchen of the house where they walk four times around the “*Chula*” (hearth). At the end of each round around the hearth, the ends of their garments are tied into a knot. This knot is loosened and again tied after every round. The bride goes to the house of her husband on the same day. She returns on the fifth day and finally joins her husband afterwards. Divorce (*Chuta-Chatala*) is permitted in case of a mismatch, economic hardship, harassment or adultery. Remarriage of widows is permitted. A widow cannot marry her paternal or maternal cousins but she may marry a relative of her deceased husband or even his younger brother.

The dead body is cremated. However, in case of death of children and pregnant women, they are buried. Before the corpse is carried away from the house it is bathed, covered with a new shroud and a coin is placed over the lips. On the way to cremation ground, the son of the deceased places a small stone, a lump of cooked rice and drinking water. Ashes are immersed in water and at night, a lighted earthen lamp along with food and water is placed at the spot where the deceased breathed his last. On the third or the twelfth day of death, “*Khatran*” (a small stone slab) kept inside an earthen pot (*Ghumat*) is installed

as a memorial. This is followed by a community feast. The “*Khatran*” is worshiped along with all the other family deities. Among Pavagadhi Chaudhari, instead of earthen pot a flat slab is erected along with “*Khatran*”. It has a picture of a king riding a horse with sword in his hand. The image reflects their historical connection with Pavagadh Rajput communities.

The Chaudhari have their traditional Jati panchayat. The “*Karbhari*” is the village headmen. The panchayat comprises of the “*Karbhari*” and few heads of households. It settles disputes between the villagers. The “*Police Patel*” is another important officer in the village. He is responsible for maintenance of law and order in the village. A *Police Patel* holds office for a term of five years. Generally, this period is extended by many years and in some cases it has become hereditary. The statutory panchayat is primarily concerned with the implementation of developmental schemes and resolving inter-community disputes.

Genomic insight on the Chaudhari tribe

All the subgroups share a common dialect, which is referred to as “*Chodhara*”. They also speak Gujarati language, which belongs to the Bhili group of Indo-European linguistic family. However, the recent genomic studies utilizing diverse molecular markers presents a unique picture of the population substructuring among the Chaudhari subgroups as well show their relationship with other population groups of India. Kshatriya et al., 2011 based on 20 autosomal markers observed less gene differentiation among the tribes of Gujarat and found overwhelming influence of Dravidian speaking groups suggestive of their genetic similarities with Dravidian population. In another study based on three polymorphic sites of DRD2 genetic marker highlighted the genetic uniformity among the tribes of Gujarat and strong affinities between Indo-European speaking tribal group of Gujarat and Dravidian –speaking tribal groups of South India (Kshatriya, 2010).

Genomic study based on autosomal markers, mitochondrial markers and Y chromosome markers reveals the underlying population structure and genetic micro differentiation among sub-structured Chaudhari populations (Khurana et al., 2014). Considerable amount of correlation between

social/ethno-historical and genomic data was observed. Though, on social scale Chaudhari tribe is subdivided into four major sub tribes but at the genomic level three broad subdivisions were identified. Considerable genomic affinities were observed between Nana and Mota Chaudhari indicating towards their common gene pool whereas distinct genetic structure of Pavagadhi and Valvi Chaudhari was noticed.

Conclusion

The present ethnographic account of the Chaudhari tribes may be useful for the scholars interested in understanding the Socio-cultural features and changes that have occurred in them with time as well as the population structure and micro differentiation captured using molecular genetics tools and techniques.

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Acknowledgements

The author extends the heartfelt gratitude to Prof, Gautam. K. Kshatriya, Department of Anthropology, Delhi University for his constant guidance and support to conduct the study. The author also thank to all the individuals of Chaudhari community who not only volunteered but also extended full support for conducting the study.

A Study on Random Blood Sugar Level of Santal Community of Mayurbhanj, Odisha

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Abstract

The level of glucose circulating in blood at a given time is called as blood glucose level and is easily changed under the influence of some external and internal factors such as body composition, age, physical activity and sex. Diabetes is a disease related by the abnormal metabolism of blood sugar and defective insulin production. It is predicted that diabetes will become the 7th leading cause of death in the world by the year 2030. So blood sugar levels are an important parameter for the study of diabetes. Around 8.5% in worldwide and 8% in India of adults aged 18 and over had raised blood glucose in 2014. The present study aims to estimate the random blood glucose level of the Santal tribes in rural setup of Mayurbhanj district, Odisha and to make a comparison with the NFHS-4 data. A total of 164 subjects were participated in the study in which 58 were female and 106 were males. The present study reveals that the frequency of people with very high blood sugar level is more in the higher age groups than the lower age group and amongst them the males are more affected than the females. However, when compared with the NFHS-4(2015-16) data, the present study shows that the Santal communities in the rural areas of Mayurbhanj have very less number of raised blood sugar level however, it is increasing.

Key Words : Blood Sugar, Hyperglycemia, Hypoglycemia, Santal, Mayurbhanj, Odisha.

Introduction

The level of glucose circulating in blood at a given time is called as blood glucose level. Blood glucose is solely derived from liver glycogen via glucose-6 phosphate to maintain blood glucose level within normal limits. Glucose is a simple sugar which is a permanent and immediate primary source of energy to all of the cells in our body. The blood glucose level is easily changed under the influence of some external and internal factors such as body composition, age, physical activity and sex. Diabetes is a disease related by the abnormal metabolism of blood sugar and defective insulin production. So blood sugar levels are an important parameter for the study of diabetes. It is predicted that diabetes will become the 7th leading cause of death in the world by the year 2030. So blood sugar levels are an important parameter for the study of diabetes. Around 8.5% in worldwide and 8% in India of adults aged 18 and over had raised blood glucose in 2014 (WHO-2014).

The glucose in blood is obtained from the food that you eat. This glucose gets absorbed by intestines and

distributed to all of the cells in body through bloodstream and breaks it down for energy. Body tries to maintain a constant supply of glucose for your cells by maintaining a constant blood glucose concentration. The concentration of glucose in blood, expressed in mg/dl, is defined by the term glycemia. The value of blood sugar in humans generally ranges from 70 - 100 mg/dl. Blood sugar levels are regulated by the hormones insulin and glucagon which act antagonistically. These two hormones are secreted by the islet cells of the pancreas, and thus are referred to as pancreatic endocrine hormones. When the blood glucose levels are high, insulin hormone secreted which causing liver to convert more glucose molecules into glycogen and when the blood glucose levels are low glucagon secreted and act on liver cells to promote the breakdown of glycogen to glucose and increases the blood glucose concentrations. Essentially blood glucose levels determine the time of secretion of these hormones. The blood glucose level varies at different time on various part of the day. Hypoglycemia is a possible side effect of diabetes medications in which blood glucose level drops

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below 70mg/dl. In people with diabetes, the body doesn't produce enough insulin or respond to insulin properly. The result is that sugar builds up in the blood stream, damaging the body's organs, blood vessels and nerves. This condition in which too much sugar in the blood stream is called hyperglycemia.

Principle of blood sugar: Glucose oxidase is an enzyme extracted from the growth medium of *Aspergillus niger*. Glucose oxidase catalyse the oxidation of Beta D- glucose present in the plasma to D- glucono -1 ,5 - lactone with the formation of hydrogen peroxide; the lactone is then slowly hydrolysed to D-gluconic acid. The hydrogen peroxide produced is then broken down to oxygen and water by a peroxidase enzyme. Oxygen then react with an oxygen acceptor such as ortho toluidine which itself converted to a coloured compound, the amount of which can be measured colorimetrically (Vlab.amrita.edu).

Area under study

Mayurbhanj district of Odisha is mainly a tribal dominated district and according to 2011 census the Santals are the highest in number in the district which constitutes about 43.3 percentage of tribal population of the district. Santals are the Mundari language speaking population in Odisha, and mostly their families are nuclear and patrilineal. A community Based Cross Sectional Study was carried out among the adults (18 years and above) of Santal Tribe in 3 villages (Changua, Talasa, Badagobra) of Tiring block of Mayurbhanj district of Odisha. The tribal population of India are experiencing phenomenal change on social, cultural, and economic fronts, for the past few decades and because of various developmental activities significant change in life style and dietary habits have seen among the tribal communities (Kshatriya et al.) and the Santal communities are the most progressive communities among any other tribes.

Aims and Objectives

The present study aims to estimate the random blood glucose level of the Santal tribes in the studied area and to make a comparison with the NFHS-4 data of Mayurbhanj district, Odisha.

Methodology

A total of 164 subjects were participated in the study and the subjects were selected by using random sampling method to estimate the random blood glucose level of the respondents, and among which 106 were men and 58 were women. There are several key characteristics of glucose meters which may differ from model to model. A “Contour™ TS” blood glucose monitoring system by “Bayer” was used to estimate the random blood glucose level. It is battery powered and is approximately the size of the palm of the hand. It uses consumable element, plastic test strips of “CONTOUR TS Test Strips” containing chemicals. Each strip is used once and then discarded. The size of the blood drop needed by “Contour TS” model is 0.6 µl and the time it takes to read a test strip is about 8 seconds. The glucose value

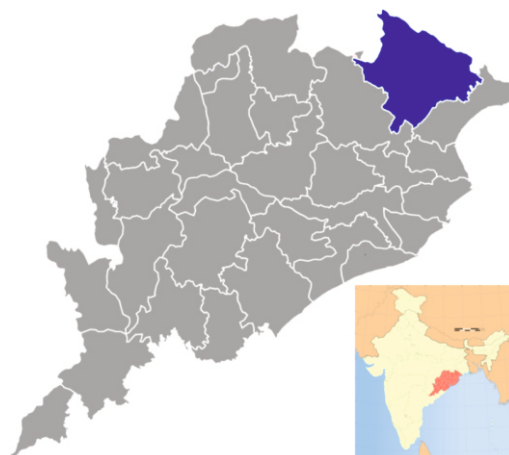


Figure1: Location of Mayurbhanj District

in mg/dl is displayed in a small window. All meters include a clock that is set for date and a memory for past results. The result of the present study was compared with the NFHS-4 (2015-16, Odisha) and the comparison was made according to the NFHS-4 parameter for raised random blood sugar, in which random blood sugar >140 mg/dl has considered as high blood sugar and random blood sugar level >160 mg/dl has considered as very high blood sugar.

About NFHS: The National Family Health Survey (NFHS) is a large scale, multi- round survey conducted in a representative sample of household

throughout India. The National Family Health Survey (NFHS) was initiated in India in the early 1990s with the first NFHS conducted in 1992-93. Since then, India has successfully completed NFHS-2 in 1998-99 and NFHS-3 in 2005-06. In 2015-2016, India implemented the fourth National Family Health Survey (NFHS-4). In addition to the 29 states, NFHS-4 included all six union territories for the first time and also provided estimates of most indicators at the district level for all 640 districts in the country as per the 2011 census. For the very first time NFHS in its fourth series expanded the domain of clinical, anthropometric and biochemical testing (CAB) and included blood glucose and hypertension measurements.

Result & Discussion

Table1: Age group and sex wise distribution of random blood sugar level among Santal tribes of Mayurbhanj district of Odisha.

Age group	Women				Men			
	Blood Sugar level normal (≤ 140 mg/dl) N (%)	Blood Sugar level-high (>140 mg/dl) N (%)	Blood Sugar level-very high (>160 mg/dl) N (%)	Total N (%)	Blood Sugar level normal (≤ 140 mg/dl) N (%)	Blood Sugar level-high (>140 mg/dl) N (%)	Blood Sugar level-very high (>160 mg/dl) N (%)	Total N (%)
18-27	20 (34.5)	0 (0.0)	0 (0.0)	20 (34.5)	29 (27.4)	1 (0.9)	1 (0.6)	31 (29.2)
28-37	14 (24.1)	1 (1.7)	0 (0.0)	15 (25.9)	20 (19.9)	0 (0.0)	0 (0.0)	20 (18.9)
38-47	15 (25.9)	1 (1.7)	0 (0.0)	16 (27.6)	16 (18.9)	2 (1.9)	0 (0.0)	18 (17.0)
48-57	0 (0.0)	1 (1.7)	0 (0.0)	1 (1.7)	14 (13.2)	2 (1.9)	3 (2.1)	19 (17.9)
58-67	5 (8.6)	1 (1.7)	0 (0.0)	6 (10.3)	15 (14.2)	2 (1.9)	1 (0.7)	18 (17.0)
Total	54 (93.1)	4 (6.9)	0 (0.0)	58 (100.0)	94 (88.7)	7 (6.6)	5 (3.4)	106 (100.0)
Mean Random Blood sugar	99.84±22.35				101.87±26.35			
	101.15±24.96							

The result from Table1 shows that about 6.9 percent of the females and 6.6 percent of males were having high blood sugar category having random blood sugar level >140 mg/dl. And 3.4 percent of males were having very high blood sugar category having random blood sugar level >160 mg/dl.

Table2: Random blood sugar status among the study participants among the Santal communities of Mayurbhanj.

Random blood sugar levels	Women N (%)	Men N (%)	Total N (%)
Blood Sugar level normal (≤ 140 mg/dl)	54 (32.9)	94 (57.3)	148 (90.2)
Blood Sugar level-high (>140 mg/dl)	4 (2.4)	7 (4.3)	11 (6.7)
Blood Sugar level- very high (>160 mg/dl)	0 (0.0)	5 (3.1)	5 (3.1)
Total	58 (35.3)	106 (64.7)	164 (100.0)

After data collection, the data was analyzed by using MS word, MS excel and latest version of IBM SPSS version software and appropriate statistical tests were employed.

Ethical statement

The study was carried out with the approval of the P.G Department of Anthropology, Utkal University and the purpose of the study was explained to the study participants and informed written consent were obtained. Participants who volunteered for the study were only considered.

Table 2 reveals that about 6.8 percent of the respondents were having high blood sugar (>140 mg/dl) among which the males are comprises of 4.3 percent and the females are comprises of 2.4 percent. Whereas 3.1 percent of the respondents were having very high blood sugar (>160 mg/dl) and that are of male category.

Table 3: Blood sugar status of Odisha (NFHS-4, 2015-16)

Random Blood sugar level	Women			Men		
	Urban	Rural	Total	Urban	Rural	Total
Blood Sugar level-high (>140 mg/dl) (%)	7.7	7.2	7.3	10.9	10.7	10.7
Blood Sugar level-very high (>160 mg/dl) (%)	4.2	3.2	3.4	7.2	5.4	5.8

Table 3 shows the review of random blood sugar level status of Mayurbhanj District from NFHS-4, 2015-16. It represents random blood sugar level of Mayurbhanj District, both in urban setup and rural setup. In the rural setup 7.3 percent and 3.2 percent were seen high blood sugar and very high blood

sugar respectively in case of women. Whereas in case of men 10.7 percent and 5.4 percent were seen high blood sugar and very high blood sugar respectively. It has seen that the males are more affected than the females.

Table4: Comparison of blood sugar status between the Santal tribes and NFHS-4 data of Mayurbhanj district of Odisha

Random Blood sugar	Mayurbhanj (NFHS-4, 2015-16)						Mayurbhanj (Santal Tribe, present study, 2018.)					
	Women			Men			Women			Men		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Blood Sugar level-high (>140 mg/dl) (%)	na	7.9	7.9	na	11.3	9.6	na	2.4	2.0	na	4.3	4.3
Blood Sugar level-very high (>160 mg/dl) (%)	na	3.4	3.5	na	3.4	2.9	na	0	0	na	3.1	3.1

Table 4 shows a comparison of random blood sugar status between present study on Santal Tribes of Mayurbhanj in 2018 and data NFHS-4, (2015-16) in Mayurbhanj district of Odisha. In the table 4 the comparison shows, high prevalence of blood sugar in NFHS-4 data than the present study in the rural setup among the Santals of Mayurbhanj district of Odisha.

The NFHS-4 data shows, 7.9 percent women and 11.3 percent men were showing high blood sugar (>140 mg/dl), where as the present study shows about 2.4 percent of women and 4.3 percent of the men are showing high blood sugar(>140 mg/dl). Similarly the NFHS-4 shows, 3.4 percent of women and 3.4 percent of men were showing very high blood sugar (>160 mg/dl) whereas the present study shows, 3.1 percent of only male were having very high blood glucose (>160 mg/dl).

Conclusion

The present study reveals that very high blood sugar level is more among the higher age groups in comparison to lower age group and amongst them the males are more affected than the females, but when the present study in (2018) among the Santal peoples of Mayurbhanj district was compared with NFHS-4(2015-16), Odisha data on raised blood sugar, it shows that the comparison of both the study implies a high difference in percentage of the result and in which the present study reveals the Santal communities in the rural areas of Mayurbhanj have very less number of raised blood sugar level, however it is increasing.

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Prevalence of Alcohol Consumption and their Association with Socio-Cultural Environmental Factors among Santal and Kolha Communities of Northern Odisha

Sunil Kumar Gouda¹ and Kanhu Charan Satapathy²

Abstract

The present study was carried out to assess the prevalence alcohol consumption, pattern of consumption, drinking ideology, preparation methods among the Santal and Kolha tribal communities of Northern Odisha. A community based cross-sectional study was conducted during January 2014 to March 2016 among 217 Santal households of and 192 Kolha households of Mayurbhanj district. Various conventional anthropological methods like participant observation, in depth interview, focused group discussion, key informant interviews, case study methods and pretested and pre designed schedules were adopted to collect information. Basically alcoholic addicted and alcoholic dependent individuals were taken for alcoholic study. Study reveals that both communities have their drinking ideology, specific drinking pattern. They consume homemade alcoholic beverage handia and mahuli. Their alcoholic beverage handia and mahuli was strongly associated with their culture. Every festivals and occasion they consume handia, No festivals, rituals was performed without handia, it is their way of life and indispensable part and parcel of their culture. To them handia is nutritional supplement, energy booster and vitalizer. They believe regular consumption keep them away from any kind of diseases. Nutritional value of handia and their indigenous fermentation process should be documented, preserved and promoted for commercial purpose. Males are consumed more than female. Though community members both Santal and Kolha consume alcohol regularly but not a single case of alcoholism has been reported which indicates that problem of drinking is very rare and alcoholism seems to almost absent.

Key Words : Alcohol, Handia, Bakhar, Starter culture, Ranu tablet, Santal, Kolha.

Introduction

The place of alcohol in Society as an artefact has been of much interest to many Scholars. When one attempts to understand the interactive dimensions of alcohol and human behaviour, it is observed that studies on alcohol are not confined to Practicer of hard Sciences, but also to scholars of Social and Behavioural sciences too. Anthropologist has been known for their expertise in the study of primitive and pre-illiterate societies, in which preparation and drinking of alcoholic beverage constitute an important and inalienable component of their socio-cultural traditions and customs. The ethnographic writings on the socio-cultural, economic and behavioural aspects associated with alcohol

preparation and use as observed and encoded by several scholars, led to laying the foundation for the developments of distinctive perspectives on drinking. The anthropological viewpoint as stated by Heath (1987) stated is to look into extensive range of interconnected socio-cultural realms that are related to intake of alcoholic brew. Mary Douglas(1987) stated that anthropologists focus on alcohol is quite different and never treat is as a problem for society from view points of empirical field research of ethnographers and anthropologists, while other scholars especially sociologists and medical scientists, working on drinking habits of people have regarded as serious and health problems.

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Anthropologist do not consider drinking leads to serious social problem in indigenous tribal communities and alcoholism seems to be almost absent in many societies where drunkenness is normal, highly valued and actively sought after. In tribal societies people prepare and consume different types of alcoholic beverages throughout the year. To them, alcoholic beverages serve many functions in their socio-cultural, economic and political life. It is well recognized fact that the position of alcohol is an integral part of life and cultures and no social and cultural activities seem to be significant without alcohol. This way of preparation and consumption of indigenous alcoholic beverages very regularly all over the years, the community members never complain any critical symptoms of alcoholic dependence or alcoholism as observed in other tribal societies of India. The insensible curiosity for any researchers is to explore the compound factors playing their respective roles in protecting and preventing the population from ill effect of alcoholic dependence or alcoholism.

Food and drink have been basic to our existence. Though food and drink are explicitly essential for our physical survival, we do not always regard food and drink in terms of provider of energy for the sustenance of our physical body alone. Indeed, food and drink convey many meanings, and help us in meeting a number of personal, social, economic, and cultural needs. Therefore, the meaning and definition of food and drink are contextual, temporal and culture specific. At the ideological level, every society or culture has its own belief, notion, attitude, knowledge, taste and perception about food and non-food, drink and non drink, sacred food and polluted food, superior drink and inferior drink etc, which are rooted in the framework of cultural logic of specific society or community. Similarly, at operational level, different societies have their institutional mechanisms that help the members of the society in meeting food and drink needs in accordance with their ideological framework and material resources.

In the accomplishment of production, distribution and consumption of food and drink, the social, economic, political institutions of communities were to function as integrative socio-cultural system within the given ecological milieu. Alcohol is a generic term used for many different chemical compounds. The type of alcohol consumed by

humans is 'ethyl alcohol' or 'ethanol'. According to Oxford Advanced Learners' Dictionary, "alcohol includes drinks of different kinds that make people drunk." It is an organic product, whose concentration differs from one drink to another. The place of alcohol in society as an artefact has been of much interest to many scholars.

The present study among Santal and Kolha is an attempt to explore the prevalence of similar kind, this practice of preparation and consumption of indigenous alcoholic beverages is continuing since ages. In the present context, the Santal and Kolha are culturally unique, ancient tribal communities of Odisha who are known for the formidable reputation as a culturally unique and hinduised population addicted to alcohol. Therefore, The genesis of the present study lies in unfolding the association of socio-cultural and environmental factors which are associated with the institutions of alcohol drinking. Two operational categories of individuals or populations may be defined based on drinking habits a) Alcohol consumers or drinkers) Perpetual drinkers or fully alcoholic dependent.

On the above background, Santal and Kolha tribal communities of northern Odisha belong to Northern Mundari language family was taken into account for the present research investigation to study the prevalence of alcohol consumption, drinking ideology, drinking pattern, habits and drinking ways and analyze their association with the socio-cultural practices.

Methods and Material: A community based cross-sectional study was conducted during January 2014 to March 2016 among 217 Santal households of Rangamatia, Sankhabhanga, Jambirdiha, Nuasahi village of Rangamatia G.P of Baripada Block, Balidiha & Mudrajodi village of Bhalki G.P. of Shamakhunta Block, Batali Rakhasahi of Rairangpur Block and 192 Kolha households of Radhanagar, Bada Manada and Sana

Manada villages of Bisoyi Block of Mayurbhanj district of northern Odisha to assess the prevalence alcohol consumption, pattern of Consumption, drinking ideology, preparation methods along with their demographic profile. Various conventional anthropological methods like participant observation, in depth interview, case study and pretested and pre designed schedules were adopted to

collect information. For qualitative data collection in depth interview, focused group discussion, key informant interviews (KII) case study methods were adopted. Subjects were interviewed with the modified Alcohol Use Disorders Identification Test (AUDIT) questionnaire. Exploratory research design was followed as very few work undertaken earlier on alcoholic habits.

Results and Discussion:

Santals are considered to be the largest homogeneous Scheduled Tribe, predominantly found in the areas of Mayurbhanj district. They call themselves Hapan, meaning child or children of human beings. It is only in the mouth of others they are regionally called Santal. But they are locally known as Majhi. Their population size is 894764, (male- 445700, female-449064). Sex ratio is 1008 and literacy rate is 55.57% (male- 68.07%, female-43.26%) as per 2011 census. They belong to northern Mundari language family. Their major occupations are cultivation, industrial labour, mining labour etc. Kolha are considered to be the larger homogeneous scheduled tribe, predominantly found in Mayurbhanj district. They belong to northern Mundari language family. Their population size is 625059 (male-310212, female-314797) as per 2011 census. Their sex ratio is 1015; literacy rate is 41.23%- male- 53.87%, female- 30.86%). Their major occupation is cultivation and wage labour.

Table 1A: Prevalence of alcohol consumption among Santal respondents

Frequency of drinking	Male		Female		Total	
	No.	%	No.	%	No.	%
Regularly	172	92.97	162	84.81	334	88.82
Occasionally	13	7.03	29	15.18	42	11.17
Total	185	100	191	100	376	100.0

Table 1B: Prevalence of alcohol consumption among Kolha respondents

Frequency of drinking	Male		Female		Total	
	No.	%	No.	%	No.	%
Regularly	136	85.53	121	77.07	257	81.84
Occasionally	23	14.47	34	22.93	57	18.15
Total	159	100	157	100	316	100.0

Observation made from Table –IA on prevalence of alcohol consumption among Santal respondents reveals that 88.82 % respondents consume regular alcohol and 11.17% respondents consume

occasionally. Out of total male respondents, 92.97% consume alcohol regularly and only 7.03% consume occasionally. Similarly among female respondents, 84.81% consume alcohol regularly and only 15.18% consume occasionally. It reveals that majority of respondents consume regular alcohol and more males are consume alcohol than females. Observation made from Table –IB on prevalence of alcohol consumption among Kolha respondents reveals that 81.84 % respondents consume regular alcohol and 18.15 % respondents consume occasionally. Out of total male respondents, 85.53 % consume alcohol regularly and only 14.47 % consume occasionally. Similarly among female respondents, 77.07 % consume alcohol regularly and 22.93 % consume occasionally. It reveals that majority of respondents consume regular alcohol and more males are consume alcohol than females. Among the Santal alcohol consumption are more prevalent than Kolha.

Table 2A: Type of alcohol consumed by Santal respondents

Type of liquor	Male		Female		Total	
	No.	%	No.	%	No.	%
Only rice Beer(handia)	106	55.78	165	88.70	271	72.07
Rice beer and mahuli	37	19.47	21	11.29	58	15.42
Rice beer and IMFL	47	24.73	- -		47	12.5
Total	190	100	186	100	376	100

Table 2B: Type of alcohol consumed by Kolha respondents

Type of liquor	Male		Female		Total	
	No.	%	No.	%	No.	%
Only rice Beer(handia)	71	54.61	161	87.5	232	73.88
Rice beer and mahuli	38	29.23	23	12.5	61	19.42
Rice beer and IMFL	21	16.15	- -		21	6.68
Total	130	100	184	100	314	100.0

Inference made from Table-2A on types of alcohol consumed by Santal respondents reveals that 72.07 % respondents consumed only their traditional rice beer *handia*, 15.42% consumed both *handia* and *mahuli* and 12.5% consumed both *handia* and foreign liquor. Among the male respondents,

55.78% consumed only *handia*, 19.47% consumed both *handia* and *mahuli* and 24.73% consumed both *handia* and foreign liquor available in nearby market. Similarly among female respondents, 88.70% consumed *handia* and 11.29% consumed both *handia* and *mahuli*. More females are consumed *handia* than males. Inference made from Table-2B on types of alcohol consumed by Kolha respondents reveals that 73.88 % respondents consumed only their traditional rice beer *handia*, 19.42% consumed both *handia* and *mahuli* and 6.68 % consumed both *handia* and foreign liquor. Among the male respondents, 54.61 % consumed only *handia*, 29.23 % consumed both *handia* and *mahuli* and 16.15 % consumed both *handia* and foreign liquor available in nearby market. Similarly among female respondents, 87.5 % consumed *handia* and 12.5 % consumed both *handia* and *mahuli*. More females are consumed *handia* than males.

Among Santal 74% take alcohol from home made and purchased from locally made, where as 26% consume from all sources like both homemade, purchase from locally made and also from market. Similarly 79% Kolha take alcohol from home made and purchased from locally, where as 21% consume both from home made, purchase from locally made and also from market. It was observed that 74% Santal have *handia* as their first choice, 22% have *mahuli* and only 4% have available liquor of market. Likewise among Kolha, 81% have *handia* as their first choice, 17% have *mahuli* and 2% have available liquor of market. Among Santal 32 % consume only once in a day, where as 65 % consume 2-3 times a day and only 3 % consume 2-3 times per week. Among Kolha 36 % have consumed once in day where as 59 % consume 2-3 times a day and rest 5% consume 2-3 times per week.

The place of Alcoholic beverages in both Santal and Kolha communities has much values as it is served in every cultural and Socio religious activity, without alcohol celebration of any cultural activity is hard to believe. In both Santal and Kolha Ideology, alcoholic beverages like *handia* and *mahuli* are considered as cultural artifacts with potent resourceful with cultural tool which help Santal and Kolha to meet various socio-cultural and health needs. Similar observation was also made among Bondo highlanders. As Bondo community believes it is just like food and provides energy, meet

nutritional needs and food scarcity. Bondo communities place their alcoholic beverages higher value in society. (J.Nayak, 2009, 2012). For them, alcohol is just like a food, which provides energy and stamina to work. It is used as indispensable elements in festivals and deep attachment with culture. It gives necessary strength and passion to proper look to celebration throughout year. Indeed, alcohol consumption habits among Santal and Kolha were culturally accepted and permitted. Both Santal and Kolha community there is certain culturally prescription and prohibition with regards to alcohol consumption like what to consume and where to consume with whom. This indicates a certain kind alcoholic drinking ways prevail which is culturally accepted in society.

Alcohol drinking in Santal and Kolha community serves many functions. Its function is contextual, varies from one to another. By and large tribal societies consider alcohol as religious act hold drunkenness as a sacred and cultural appearance of state. Various festivals and rituals in tribal society are closely related with each other. Both Santal and Kolha communities use alcoholic beverages *handia* and *mahuli* in various kinds of social and religious activities and other celebrations throughout year. Bondo highlanders of South Odisha also consumed their alcoholic beverages in various socio-cultural and religious activities, without alcohol festivals has no meaning to them. (Nayak JK 2009, 2012).

Traditional alcoholic beverage fulfils many socio-cultural and religious activities among Munda society of northern Odisha, as they feel it is the part and parcel of culture (Ho & Mishra, 2015). Tribes and PVTG of Rayagada district consume their indigenous beverages during different fairs, festivals and occasions (Baul et al, 2016). Bhuyan *et al.* 2013, reported tribes of Assam consumed rice beer in many occasions, festivals, marriages and community gathering which give it special recognition. Since long alcohol is regarded as tension reliever in many Society. Communal drinking act as a means of contact between people of different ranks and status in society. The peculiar roles of alcohol in a community environment establish the vital role of drinking place as a catalyst of social bonding. To facilitate social relation and social bonding is the core function of drinking. Giving out of different alcoholic drink among the community members and villagers express the

social bonding and social cohesion among Santal and Kolha society. *Handia* is the main alcoholic beverage of Santal and Kolha society. Consumption is a grouping activity. Group members may be of same or different villages and clan, but all of them distribute equally among themselves. During different social activities, rituals and festivals community members have a pleasure of sharing *handia* among each others, without restricting clan and villagers they invite and offer the same to outsider guests also. Indigenous alcohol plays vital role as it strengthen social bonding, establish social integration among Munda community (Ho&Mishra, 2015) and Bondo highlanders (Nayak JK2009, 2012).

Consumption of alcoholic beverages in many societies is regarded as indicator or symbol of important social status. In general, foreign drink or imported drink has superior or high status than local country made beverages. Preference for higher status beverages can be an expression of aspiration rather a sign of actual situation in societal hierarchy. The consumption of quantity and quality of alcoholic beverages represents the higher economic status among Santal and Kolha society. Both Santal and Kolha community members usually consume *handia*, but when they have money they prefer for *rasi* and *mahuli*. *Rasi* and *mahuli* have more intoxicate property than *handia* and these are considered as precious, finer and esteemed drink. Similar observation was made among Munda (Ho & Mishra, 2017), Bondo Highlanders (Nayak JK, 2009, 2012). Male members consume more than female within family. Male members consume also with peer groups when at outside, but females drinks occasionally at outsides. Few cases of quarrels between husband and wife were observed due to excess consumption by husband. Among Santal and kola elder members consume more than younger members. . The class structure is both within and between villages. There is no incidence of conflict for alcohol consumption. There was a remarkable class difference was observed among Bondo Highlanders on the basis of alcohol consumption (Nayak, JK 2009, 2012).

Santal and Kolha are very much loving of alcoholic beverages. They consume primarily *handia* and *mahuli* prepared at home and from outside *handia* and *mahuli bhati*. Now-a-day Govt distilled liquor and foreign liquor centre are available in nearby

market. Both Santal and Kolha societies considered their alcoholic beverages *handia*, *mahuli* and *rasi* as their food; it serves as appetite, helps to restore energy in body as well as source of pleasure to them. Among Santal 89 % consume alcohol daily and only 11 % consume during different rituals and festivals. Similarly 82% of Kolha consume in everyday and only 18% consume during festivals and occasions. Generally *handia* are consumed everyday and *mahuli* and *rasi* are consumed during specific occasion. It was observed from their daily life that both Santal and Kolha consume *handia* in early morning with or without food and work up to 12 noon, they take boiled rice or *mandia* gruel to work place for lunch. In afternoon, they consume *handia* and after return from workplace they again take *handia* at evening. Basically during cultivation time December-March they consume more during summer session in order to cope with extreme hot climate. An adult member of Santal and Kolha consume approximately 1 lit of *handia* at a time. They consume more during harvesting time December-March. But their consumption increases during summer due to cope with extreme heat of summer. They believe that *handia* consumption during summer keep them away from Jaundice and dysentery and dehydration. *Mahuli* (prepared from flower of Mahua plant) is costly because they have to either purchase mahula (raw material) or collect it from jungle and the Santal and Kolha people consume it less than *handia*. In socio-religious occasions *handia* along with *rasi* and *mahuli* are considered as sacred food. Generally Santal and Kolha people consume *handia* without food at home but with certain kinds of snacks and fried/boiled *matar* (locally termed as *Chakahana*) at *handia bhati* or selling point. They only consume it with rice when they consume at home. They take *rasi* sometimes when they have money as this is more intoxicating property than *handia*.

Style of drinking as observed from study reveals that during consumption at *handia bhati* when they have snacks/*chakahana*, consume more *handia* and interact with their fellow community members which strengthen their social bonding. Similarly educated Santal and Kolha people prefer to drink at home and rarely consume at *bhati* and mix water for dilution and consume less as compared to other illiterate people. More than two third Santal and Kolha people prefer to take alcohol with light food

like snacks. Women drink less as compared to male. Male drink heavily, consistently and enthusiastically. Children start drinking at home as parents and elder member offer to drink. Consumption for the first time in life is treated as sacred and just like ritual as that time home deity was worshiped. Majority of Santal and Kolha people start consumption of alcohol from very early childhood. Alcohol become part and parcel of life during critical days of youth as it assist people in the long labour of

the plough, in the impressive quest for love, through tiresome business of marriage ceremony, during old age it is supportive to through routine of religious ritual, tranquilizer against sorrow of funeral, distraction of family feud and worries of an official visit. Indigenous alcoholic beverages *handia* prepared by tribal communities of Odisha, West Bengal, Chhattisgarh and Bihar have also take it as a food which gives them energy and good sleep as the *bakhar* which is used for fermentation process by tribal people have prepared six plants products like of *Cissampelos pareira* (Akanbindi), *Diospyros melanoxylon* (Kendu), *Lygodium flexuosum* (fern), *Orthosiphon rubicundus* (Chandua), *Ruellia tuberosa* (Chaulia) and bark of *Terminalia alata* (Asan) which have medicinal values. (Dhal et al, 2010). Bondo highlanders of southern Odisha also take their alcoholic beverage as food supplement and tranquilizer (Nayak JK 2009), Munda communities take it as food supplements (Ho & Mishra, 2017). Tribes of Rayagada district including 3 PVTG Dongaria Kondh, Kutia Kondh and Lanjia Saora prepares 21 different fermented and non fermented alcoholic beverages prepared by indigenous method based on available flora and fauna from nearby forest. Alcoholic beverages play an important role in their life socioeconomic life and integral parts of their social and cultural life. Fermented beverages are of great significance as they provide and preserve vast quantities of nutritious food in a wide diversity of flavors, aromas and textures which enrich their diet and are well understood by them since long... Be it a social ceremony, any festival, marriage or funeral feast they prefer to take country made alcohols. Even they offer this alcohol to their gods and deities. Tribal use these beverages as thirst quenchers and for enhancing the enjoyment and quality of life. Almost all tribal people including male, female and

children, they do take this daily in addition to their normal meal. Among the alcoholic beverages Jam (Psidium guajava) Mad and Jamkoli Mad (*Syzygium cumini*) are the two most popular beverages. . Tetel mad and Jam made was prepared by Kutia Kondha, *Salapi* and Mahuli Made by Dongaria kondh. (Baul et al 2016). Similar observation was reported by Singh et al, 2006 that Meitei community of Manipur prepare their traditional beverage Yu taking 12 plants products of medicinal value, so that it helpful for get rid of many diseases and as food supplement. Saikia et al 2007 also reported among Ahom tribe of Assam that their alcoholic beverages as hallucination property and energy booster. Deori et al 2007 reported similar kind of observation among Deori tribe of Assam that their beverage Sujan is good for health and remedy for various common ailments. Sumati et al 2007 reported among tribes of Jaintia hill of Meghalaya that Kiad beverage prepared from rice are beneficial for health, used for cure dysentery and other disorders. Tanti et al. 2010 reported tribes of Assam, Mizoram, Nagaland; Meghalaya used 11 different plants to prepare their alcoholic beverages which have significant epidemiological effect on human health. Deka et al 2010 reported rice beer prepared by Rabha tribe of Assam have based on indigenous culture and health care system which has high medicinal value in relieving headache, diarrhea, urinary problem etc. Shrivastava et al. 2012 reported 10 different alcoholic beverages prepared by 21 different tribes of Arunachal Pradesh used from medicinal plants along with other natural products like rice, millet, barley, pant tubers in the preparation which results the rice beer as one of the rich sources of nutrition and health of the tribes. Bhuyan et al. 2014, reported rice beer of North East India have protein content, nutritionally rich and high therapeutic values which are beneficial for health. Traditional drink Jou of Boro tribe of Assam have protein, amino acids and vitamin which has beneficial impact on health as well as healing potential in curing various diseases as reported by Basumatary et al. 2014. Ghosh et al. 2016 reported rice beer prepared by tribes of Tripura due to prolonged fermentation the concentration of alcohol is increased and plants used having nutritional and medicinal which is beneficial for the metabolic stability in prolonged fermentation the concentration of alcohol is increased and plants used

having nutritional and medicinal benefits for the metabolic stability among consumers.

Drinking is basically a social act and governed by diverse rules and norms of society like who may drink with whom and at which place and when etc. Drinking any where is not desirable and majority of tribal cultures have definite and chosen environments for communal drinking. The drinking place appears to be an important aspect in almost alcohol consuming cultures. The character and position of public drinking-place seems to be an extension of physical personification, of the character itself. It is evident that where there is alcohol, there may be a devoted surrounding where drinking takes place, so almost all cultures has its own well distinct public drinking place. The drinking place is generally a

Unique location which represents a separate sphere of existence, an isolated social world, with its own laws, traditions and ethics. Drinking place likely to be socially integrative and unrestricted environments. At last main purpose of drinking place in majority part of cultures seems to be social interface and social bonding. The fundamental task of exchange and reciprocal giving in the concern and reaffirmation of social bonding has been acknowledged by anthropologists since long. In cultural perceptions of alcohol, the ethnographic evidence suggests that the drinking-place meets some deep seated, universal human needs (Heath, 1987).

Among Santal and Kolha there is no specific or clear cut demarcated drinking place. Though majority of people drink at their home, but community people of Santal and Kolha prefer to drink near *handia bhati* and *handia* selling point. When community members are in outside home, their preferred place of drinking are at *handia bhati* (*handia* Production centre) and *handia* selling point, at local hatt, at fairs, festivals and occasion. But there is taboo place of drinking like near Jahira Deity though they offer alcoholic beverages *handia* to their traditional god and goddess. Difference observed in terms of age, class, status, aspirations and affiliations are expressed through beverage choice. Generally elder and younger people consume more than that of children. Similarly male members consume more than females. People who are earning more consume more than less earning people. There is no such

concept or distinction between masculine and feminine beverages was observed. Both Santal and Kolha people share their beverage *handia* and *mahuli* among their family members equally.

Basing on patterns of alcohol beverages drinking situation, it was clearly observed that males members of Santal and Kolha prefer to consume alcohol as and when available to them, where as females prefer to consume alcohol as per availability. Frequency of consumption at early morning was observed more among males than females. There was few incidence of problem drinking among Santal and Kolha observed. Females have faced very few problems due to alcohol consumption. But some members of Santal and Kolha communities face problem due to drinking. Some male members quarrel with family members, hampering household activity do not give money for running of family, in that case wife or female member beats. These problems arise due to excess consumption that is also adulterated alcohol beverages available from market.

Mechanically de-husked rice is soaked and boiled in water. The cooked rice is dried on a bamboo mat under sun. After drying, the rice is mixed with required amount of powdered *bakhar* or *ranu tablets* (approximately 10 tablet per kg rice), kept in a large earthen pot or *Handi* (hence the name of the product) followed by addition of required amount of water. The mixture is kept untouched for 3-4 days for fermentation. After proper fermentation a white supernatant was present at the upper layer containing 8-10% alcohol called *rashi*, which fetches higher price. After 2-3 days the fermented liquid is allowed to trickle down through a bamboo sieve, collected in earthen pots and is ready for consumption. The taste of *handia* depends on the plants used for *ranu /bakhar* preparation. About 8-10 *bakhar* tablets are used for 1 kg of rice, which together produce about 10 L of *handia*. The quality gets lowered on dilution.

Handia is generally prepared by most of Santal and Kolha household. Some family regularly prepares *handia* and some family prepare weekly basis. *Handia* prepared from rice and then to make fermentation they add *bhakhar* or *ranu tablets* which is locally available. For preparation of *handia*, female member play the major role. Though sometimes male member purchase or collect *bakhar* and help for preparation, but most of the time female

member purchase it from local haat and prepare it. It was observed that most of the female members sell the *handia* at local *haat*, nearby market place and also on road side. The money earning from selling *handia* are spend for day to day family expenditure. Male members also sell at some *handia bhati*, but it is the routine duty of female to prepare and sell *handia*. Earning from *handia* by women in both Santal and Kolha villages indicate their role in household management.

Every region there is interaction takes place between man and nature. To define this system, certain criteria include technology, level of wants and their satisfaction and the state of balance of all over a period of time. From environment technology energy conversion angle, preparation of distilled alcoholic product bears a positive approach among Santal and Kolha. They prepare their traditional alcoholic beverage *handia* from locally cultivated rice and *bakhar* (prepared from locally available various plants). similarly *mahuli* from *mahua* flowers. They prepare these through their traditional distillation process. These distilled alcohol beverage contain energy value and protect supplement to food demands. There is an adaptive mechanism developed among the Santal and Kolha people to meet their food and nutritional demands from these distilled liquors in a defined ecosystem which was developed since long. Santal and Kolha community of the studied area have basically depends on their forest based ecosystem for their livelihood. Majority of them depend on forest and local land cultivation for their livelihood. All the flora and fauna contribute substantially for their livelihood. They generate their energy and nutritional supplement from traditional distilled liquor which is prepared from rice, *bakhar* plant products and *mahua* flower which are readily available in their cultural ecosystem. So Consuming little amount of alcoholic products provides the satisfaction of 'fullness' to stomach and able to overcome the mental pressure of food crisis among the Santal and Kolha, which acts as an adaptive behavior in their respective ecological settings.

Case studies based on socio cultural Practice associated with Alcoholism:-

Case study-1:- I visited Rangamatia village tried to meet with their traditional Headman i.e. Majhihaham. At that time I came in contact with a

Santal old woman, named Rajma Hansda., who is mother of Majhihaham. Then I started narrating about my purpose of visit. Initially she along with two other women reluctant to talk with me, as they thought that I am a Journalist or police personnel came to investigate about their *handia bhati* or make photograph to print in any paper. But convincing about my real purpose I established rapport with her. Discussed about their *handia* consumption tradition and collected a lot of information about *handia* consumption. To her, consumption *handia* is regular feature of their society. They offer *handia* to traditional Goddess, after that they drink. Majority of the adult family member drink *handia* as to them it is a nutritional supplement. From early morning they start drinking before visit to agricultural land or any other places for work. They narrated that *handia* make the stomach cool, so that we are able to do hard work or any other manual work, it prevents them from Jaundice, and they feel energetic. It is our tradition. No ritual, ceremonies and festivals are performed without *handia*. When I asked do you consume *handia* regularly, they explained that we have no money to drink regularly and when we have money we drink one or two glass of *handia*. It indicates that their strong willingness for drink.

Case study-2:- I visited Rajabasa village during evening hour of a day. I came in contact with few male members returning from Jungle. All are in a drowsy mood, I came to know that after collecting wood and other jungle vegetable for curry preparation from Jungle they feel tired. Due to tiredness they drunk *rasi* (foam part of *handia*). They regularly drink *handia*, but when they drink more, after return to home sleep few hours and even do not talk with spouse. One person told that without *handia*, we cannot work. It is a peculiar incidence for me.

Conclusion

Community members consume *handia* regularly as nutritional supplement. To them it an energy drink, vitalizer. They always prefer to drink with their peer group members, at a common place indicate that drinking *handia* at a common place establishes a sense of social bonding. Santal and Kolha are famous for preparing *handia* indigenous alcoholic beverage such as *handia* and *mahuli* which they consume in every social function, cultural festivals, and rituals and in all kinds of social and cultural

events. They enjoy during all ceremony with *handia*, indicates that it is a part of their tradition and mark of festivity. Life without liquor is unthinkable to them. Basically *handia* and *mahuli* serve several roles and functions in social cultural events to their ideology. Alcoholic beverage cater to satisfy several social and cultural needs and aspirations. *Handia* is treated as nutritious and harbinger of laziness, the distilled liquor and *rasi* is treated as intoxicant and not a regular consumable item since it adversely affect health. Drinking *handia* from local market is rare, but they prepare *handia* at home to consume regularly. They do not think it is harmful to body rather than they think it is a vitalizer and refresher for body and mind. Unlike non-tribal society they never discourage to drink alcoholic beverages among the community members rather than they encourage consuming their traditional alcoholic beverage *handia* as it is their part of Culture. Alcohol bears symbol and status to community members. All kinds of rituals observed by Santal throughout the year are celebrated with consumption of alcoholic beverages unfettered. Alcohol beverages along with other food items are offered to number of Gods and Goddess or even to spirits as sacred offering to appease them. Alcohol beverages become sacred after these are being offered to goddess and are distributed to all village members. Thus, to them it is sacred food.

Though community members of both Santal and Kolha consume their alcoholic beverage *handia* regularly but there is no such problem was observed due to consumption. As stated earlier, one of the strongest claims of social and cultural anthropologist is that alcoholism is not to be treated as a problem. In the context also it was observed that alcoholism is not treated as a problem, not a single case of alcoholism has been reported from studied households among Santal and Kolha societies. More than three fourth of the observed and interviewed population are falling under normal category. The present empirical observation lends full support to the major proposition that problem of drinking is very rare and alcoholism seems to virtually absent.

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The Indigenous Religion and Culture are at Peril (A Case study of Khondh of Kandhamal District of Odisha)

Kabiraj Behera

Abstract

The indigenous Religion is the set of belief and practices that held in an individual community. Generally it involves in codified rituals, that practice become the part of the life of indigenous people like Kondh. The religious belief and the pattern of practices manifests in the form of indigenous culture, which plays very important role for survival of the indigenous community. Culture is the living bunch of moral principles that lead and regulate the way of life in the indigenous society and it transmits from generation to generation. The religion grip up the culture through different taboos and its' continuity depends on recognition and acceptance of the community in course of time and space. The religion and cultural identity manifests through stories, dance, rituals, verbal and non-verbal communication of the tribal community. The present piece of work put emphasis on the indigenous religion and culture of Kandh community of Kandhamal district of Odisha and its' survivability in both traditional and modern context, which is now at jeopardy. Then it tried to explore the process of change due to intervention of western missionaries and introduction of Christianity in the life of traditional Kandh community of Kandhamal. It also talks about cultural renaissance wherein conscious efforts should be made by local Kondh people to revive their recently forgotten religious traditions and culture.

Key Words : *Indigenous, Kui, Mudengi, Piju. Tana Penu, Soru Penu, Bira.*

Introduction:

Culture is the output of religion. After long interaction with the environment, the Kondh of Kandhamal realizes some unexpected and super natural activities that believed to be regulated by almighty or God. So they developed the mechanism to survive in a particular environment. To adjust with a given environment, they developed some set of rules and regulations that deeply connected with a particular God and Goddess of the given area. The Kondh community accepts such bunch of rules for welfare of the society. So religion may be defined as a system of belief and practices of rituals for the supernatural being. But Indigenous Religion is a set of belief and practices for particular god and goddesses of the specific area, which helps the people to survive in those surroundings. Therefore it is somehow different in ritual practices and system of belief from one area to the other. Hence it is believed that each god or goddess employed for

specific activities and welfare of the society. So they are different in terms of their ritual specialists, welfare activities and place of adorn. As a result the Kondh uttered their almighty differently like; Jungle deity (*Ban Devi*); "*Soru Penu*" (*Hill/ Forest deity*, Soil deity (*Mati Debata*) "*Tana Penu*" etc.

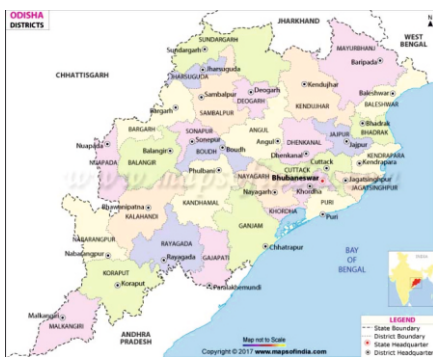
On the other hand culture is the way of life that developed in particular area to regulate the life and activities of the society. Indigenous culture is defined as the output of specific area and developed by long interaction with the specific natural surroundings. The indigenous culture is not developed in a day; month or year rather it took lot of time to develop the set of regulation. It is area Specific in nature. Hence both indigenous religion and culture are interdependent of each other. Indigenous cultures are living entities that are transmitted from generation to generation. Indigenous cultural continuity depends on the social recognition of a community's identity, and on the

reproduction of cultural products, such as stories, dance, religious rituals, everyday interaction, and on reproduction of the organization of society as a whole. The total countless of factors that make up the thing, we call culture, need to be reproduced, if culture is to continue, but this must not preclude cultural change. Rightly E.B. Tylor said that culture is “that complex whole which includes knowledge, belief, art, law, morals, custom and any other capabilities and habits acquired by man as a member of society”. Hence culture is the full range of learned human behavior patterns (Primitive Culture; 1871)

of a particular environment.

Area and people under Study:

The present study was carried out in two places of Kandhamal district, i.e. Dubagarh village and Narayani Sahi of Phulbani town. Dubagarh village is situated 13 Kilometers away from the Phulbani Town. Dubagarh village is studied as a base village and Phulbani town considered for the purpose of comparative study as well as for comparison of field datum.



Odisha Map



Fig.1: Study Area

Kandhamal revenue district came into existence on 1st January, 1994, after Phulbani district was divided into Kandhamal and Boudh districts of Odisha. The district lies between 83.30° E to 84-48° E longitude and 19-34° N to 20-54° latitude. The district headquarter is Phulbani, located in the central part of the district. The other popular locations are Baliguda, G. Udayagiri, Tikabali and Raikia.

Kandhamal is one of the beautiful districts of Odisha. Kandhamal experiences sub tropical hot and dry climate in summer, Dry and cold climate in winter. The maximum temperature recorded in the District is 35.00 degree C and minimum temperature is 1.0 degree C. (as per district web-site portal information; www.Kandhamal.nic.in). the average annual rainfall recorded is 1522.95 mm. The Kandhamal district covering a geographical area of 8,021 sq km is bounded by Boudh district in the North, Rayagada district in the South, Ganjam and Nayagarh districts in the East and Kalahandi district in the west.

Physiographically, the entire district lies in high altitude zone with inter spreading inaccessible terrain of hilly ranges and narrow valley tracts, which guides the socio-economic conditions of people and development of the district. Kandhamal District is very much famous for handicrafts such as Dokra, Terra-Cotta, Cane and Bamboo works. The region is proud of its rich cultural heritage.

The Kandhamal is bestowed with the beauty of nature. It has wild life, scenic beauty, healthy climate, and serpentine ghat roads for the tourists. It has attractions, like panoramic coffee gardens, pine jungles, ghat roads, hills and waterfalls, virgin forest and typical tribal village life. A majority of the land area i.e. 71% of the district is forests, and 12% of the land is cultivable, the towering mountains rich in green meadows at the altitude of 2000 feet to 3000

feet. The terraced valleys thronged with these colourful tribal Kondh with their natural heritage, dancing and sporting have its own appeal. The connectivity with other districts is poor except Ganjam and Bhubaneswar. Kandhamal is one of the poorest districts in Orissa, ranking 29th out of 30 districts as per the report of Human Development Index (www.kandhamal.gov.in). Kandhamal is endowed with vast minor forest and agricultural produces which incidentally form the basis of its Industry. The district has many cottage and agro based industry that process forest and agricultural produces.

Kandhamal has 2 sub-divisions viz. Phulbani, and Balliguda; with 12 Tehsils, 12 blocks and 153 Gram Panchayat. As per 2011 census data, Kandhamal had population of 733,110 of which male and female were 359,945 and 373,165 respectively (www.kandhamal.gov.in). Generally people of Kandhamal speak Odia language. Most of the Kandhamal rural area is cover with Kandh or Khond tribal people and they use to speak their own dialect "Kui". Now the Kandh dialect developed the script. The script was developed by Dayanidhi Mallick of Udayagiri Block of Kandhamal district. A Dictionary of "Kui" language entitled "Bruhata Kui Sabdha Kosa" along with some literature has been developed by Baidunka Dash and Piyush Ranjan Sahoo; Research Associate of anthropological Survey of India by the help of Anthropology research scholar Mr. Dinesh Chandra Dash, who himself, belongs to the tribe Kandh.

Festivals of Kandha:

The people of Kandhamal celebrate many religious festivals. The "Danda Nacha" is celebrated in the district mainly by the Khond tribals with following of their traditional religious practice. It is a well mixed tribal-Hindu tradition which carries the unique features in Odisha. They observe this for thirteen days with sanctity and fasting for all the thirteen days for the particular boon or for grace. Most probably the festival starts from first April and ends on 13th April and the closing ceremony are called as "Meru".

In the month of January, Kondh performs post harvesting ritual "*Sisa Laka*" after harvesting the crops in the villages with their own convenience. In the month of March they worship the village deity

"*Dharni Penu/ Tana Penu*" and mountain deity "*Saru Penu*" as thanking ceremony before collection of the mahua flower and green mangoes as well as the forest produces. After offerings to these both deities, they collect the forest produces for their food, clothing and shelter. In the month of April/may they offer the mahua flower in the form of cake to the village deity, this ritual is called "*Maranga Laka*". On special occasions "*Kedu Laka*" (The new eating ceremony of Mango) is performed, the date and time are decided by the village priest locally called "*Kuta Gatanju*". "*Kedu Laka*" is one of the main occasions among Kandha tribe; they do *Kedu Laka* to eat new Mangoes of the village. After sowing the seeds, a ritual (Puja) is performed by "*Jaker or Jhankar*" (Priest) on behalf of the villagers to appease the mother earth called "*Jakera*" for better crops and harvest. This worship is called "*Bora Laka*" and it is generally performed in the month of September or October. In the month of November and December new crops are collected and out of which "*Chuda*" (one type of dried rice) and *Khiri* (boiled matted rice) prepared to offer village deity before consume newly harvested crops as food.

There is another festival called "*Thakurani Parba*", observes in Phulbani town by inhabitant of the town including Kondh and phulbani town dwellers. It is said that once upon a time the place where now erected "*Thakurani Temple*" was a place of Jungle deity. After invaded by the outsiders other than tribal and Harijan the Jungle deity had been converted the name as "*Thakurani*", but needs more research for further clarification. But it also seems so, because the Phulbani town and nearby areas where Kondh tribe and Harijan live together have their own jungle or village deity, as Phulbani town was a village till 1904 (Bisipada was the sub-divisional head quarter of Phulbani and sub-Divisional officer was A.J.Ollen Batch. And Mr. Batch was shifted the Sub-divisional head quarter from Bisipada to Phulbani Town in 1904; History of Kandhamal, U.C. Nayak-2015) but in course of time they scatted in to the nearby place as per their convenience. However now it is one of the very familiar festivals of the town, which is observed by the people of Phulbani. During the festival, the town adorns with beautiful decorated light and appears like newly married bride.



Fig.2a: Dal Khai Festival of Kandh



Fig. 3: Village procession of Dalkhai festival

Many of the Kandh tribal are converted into sect of Protestant Christianity in the late Nineteenth Century, and they celebrate Christmas and Easter. It is also seen that some of the Kandh follow Islam and festivals like Eid, Ramzan and Muharram are also celebrated.

Different tribal populations are found along with the Kandha tribe in Kandhamal district of Odisha. All inhabitants of the district share their culture, tradition as well as the way of life. The composition of tribal population in the district is Khond, Kandha, (Nanguli Kandha, Sitha Kandha, Buda Kondh, Bura Kandha, Desia Kandha, Dongaria Kondh, Kutia



Fig.2b. : Kandh Priest

Kandha, Jharania Kondh, Muli Kondh, Malua Kondh, Pengo Kandha, Raja Kondh, Raj Khond) Kisan (Nagesar, Nagesia) Kol. Kolha Lohar etc. The major inhabitants of the district are “Kandh/ Kandha”, as per 2010 census the Kandha is the largest tribal population in Odisha.

Methodology

Anthropological survey method is used for the data collection. Interview, observation method are also employed for collection of data from the field. The secondary data is collected from different internet web-site and official sources. Video-graphy and still photography was also adopted during the field work for documentation of some facts. The statistical methods are used to interpret and analysis of the factual data.

Census analysis of the study area:

The village Dubagarh is undertaken as the base village and Narayani Sahi of the Phulbani town as a comparative place for the study. The table-1 represent the Census data of the study village and comparative hamlet; Narayani Sahi of Phulbani, Kandhamal.

Table-1: Census of Dubagarh village

Sl.No.	Category	ST			SC			Gen			TOTAL		
		M	F	Total	M	F	Total	M	F	Total	M	F	Total
1	0-10	15	17	32	18	20	38	13	17	30	46	54	100
2	11-20	21	25	46	19	21	40	17	12	29	57	58	115
3	21-40	40	43	83	44	48	92	70	78	148	154	169	323
4	41-60	15	17	32	12	13	25	11	9	20	38	39	77
5	61- Above	7	6	13	8	10	18	3	3	6	18	19	37
Total		98	108	206	101	112	213	114	119	233	313	339	652

(Source: Primary source- the census data empirically collected from the village)

The enquiry was made on 652 people of the village, from the total population 313 are male (48.006%) and 339 are the Female (51.99%). The total ST population of the village is 206, where 98 are male

and female are 108. The SC population of the village is 213; in which male are 101 and 112 are female. The total number of general population is 233, where male are 114 and 119 are the female.

Table-2: Census of Narayani Road (Phulbani)

Sl. No.	Category	ST			SC			Gen			TOTAL		
		M	F	Total	M	F	Total	M	F	Total	M	F	Total
1	0-10	9	07	16	16	18	34	8	11	19	33	36	69
2	11-20	05	7	12	12	13	25	11	09	20	28	29	57
3	21-40	20	22	42	55	58	113	19	23	42	94	103	197
4	40-60	10	15	25	15	18	33	14	16	30	39	49	88
5	61- Above	2	4	6	--	3	3	1	2	4	3	9	12
Total		46	55	101	98	110	208	53	61	114	197	226	423

(Source: Primary source- the census data empirically collected from the village)

The total population of Narayani Road of Phulbani Town is 423, from them 197 are the male (46.57%) and 226 are female (53.42%). Total ST Population of the area is 101, where male are 46 and 55 are the female. SC population of the area is 208, from them male are 98 and females are 110. Total number of General population is 114, from them 53 are male where as 61 are the female.

Indigenous Knowledge and different livelihood activities:

In the idea of Indigenous Knowledge the Kondh people access to the environment for their survival and sustainability through; a) Rainfall Forecast b) Knowledge of Soil Type, c) Mulching d) Soil Fertilization, e) Seed Selection f) Multiple cropping g) Maintenances of crops h) Storage of seeds and Crops etc.

Indigenous knowledge is a systematic body of knowledge acquired by local Kondh people through accumulation of experience, informal experiment, and understanding of their environment. The indigenous systems of crop production emerged

over centuries of cultural and biological evolution and represent the accumulated experiences of indigenous kondh farmers. The farmers produce indigenous crops through knowledge of environmental conditions and seasonal change without access to external inputs, capital, and modern scientific knowledge. After centuries of cultural and biological evolution, the Kondh community has developed locally-adapted, complex farming systems that have helped them manage a variety of environments to meet their subsistence needs. Indigenous crop production provides rural Kondh people with food resources.

Category of clouds and quantity of rain:

For the purpose of agriculture the Kondh farmer primarily depends upon the quantity of rain, accordingly they select the crops for different categories of land. The Kondh farmer presumes the quantity of rain fall by observing of the cloud and its direction of occurrence. As per their knowledge they divided the cloud in to six major categories, which are given below in tabular form:

Table- 3: Different types of Cloud and rain fall forecast

Sl.No.	Name of the Cloud	In Kui	Weather condition
1	Deep and black cloud from hill side	Pura Kala Mudengi	Brings heavy rain (Piju) (Soru Minjadai Piju Bai Manu)
2	Black cloud From the hill side	Kala Mudengi	Brings rain
3	Gray cloud from hill side	Pika Mudengi	May or may not rain
4	White cloud above the head	Dala mund Mudengi	No rain
5	White cloud From Hill side	Dala Mudengi	May rain
6	White cloud from other than hill side	-	No rain

Here they told the 6 categories of clouds, which forecast the different weather condition and its capacity to bring rain to the land. The cloud which is deep back cloud from hill side brings heavy rain, they call it in Kui language “*Soru Minjadai Piju bai Manu*” (Soru- hill, Minjadai-From, Piju bai- Rain, Manu – Coming). And from all other sides' clouds brings no such amount of rain to the land.

Table-4: Soil condition and capacity of fertility

Sl.No. 1	Colour of the soil Black Soil (Kala Bira)	Soil Condition Porous and Porosity of the soil is high	Yielding capacity Fertile and fetches good harvest.
2	Gray soil (Pika Bira)	Good porous and porosity	Fertile
3	Red soil (Ranga Bira)	Porous and porosity condition of the soil is not good	Not so fertile, need addition of bio or chemical fertilizer
4.	Hilly area with 30 to 60 degree slope	Porous and porosity condition is very less	Not fertile

As per the above condition of the soil (*Bira*) and capacity of porous and porosity, the Kandh farmer cultivate land. In this way, they also select the different crops to get the better harvesting. Accordingly they also decide to cultivate the multiple crops in a single site. Most of the common cultivation of the Kandhamal is turmeric. The land of Kandhamal is eligible enough to cultivate the turmeric. So they always take more interest on Turmeric cultivation. It also fetches good amount of money for the farmer as Kandhamal turmeric is famous in the name of “*Kandhamal Haladi*”.

The Kandh of Kandhamal practices the agriculture. But the amount of harvesting depends up on the grace of god or goddess, i.e. “*PENU*”. In every part of agricultural work, the Kondh convey their gratitude to the gods and goddesses, for which they observe different rituals and festivals. The deity of Soil is called “*Tana Penu*”. Therefore *Tana Penu* is worshiped at the every agriculture connected rituals.

Indigenous religion gives birth to the Knowledge, which is complementary for the better harvesting, good health and welfare of the society. The god of soil “*Tana Penu*” (*Mati Dehta*) gets satisfaction by sacrificing of the animal, ultimately the meat is distributed with the friends and relatives. It also provides the animal protein, minerals and vitamin to the poor kondh people and supplements them to reduce malnutrition. The indigenous knowledge and culture are the complementary phenomena and are

Soil and Fertility:

As per the indigenous ideas of the Kondh people, the soil of different area carries different colour and the fertile capacity of the soil is depends upon the condition and colour of the soil. All of their soil division is given below:

essential to human development and survival. So Global awareness of the crisis concerning is the conservation of biodiversity that assured in the United Nations Conference on Environment and Development held in June 1992 in Rio de Janeiro. It creates the equal concern to many world citizens on the uncertain status of the indigenous knowledge reflects many generations of experience and problem-solving by thousands of ethnic groups across the globe. Very little of this knowledge has been recorded, yet it represents an immensely valuable data base that provides humankind with insights on how numerous communities have interacted with their changing environment including its floral and faunal resources.

Division of Hill and forest (Soru Penu):

In “Kui” dialect of Kondh community hill/ forest is called as “*Soru Penu*”. The hill and the forest are their main source of economy and livelihood. The Kandh Tribe has developed Indigenous knowledge system, which plays a vital role in conservation of hill and forest. An attempt has been made to analyze the role of Indigenous knowledge system, beliefs and sacred groves in conservation of forest resources. The indigenous knowledge system applies for conservation as well as utilization of plants, animals, sacred groves in diverse activities. The different parts of the hill and forests are meant for some special purpose, as given below:

Table-5: Division of Hill and Forest

Sl.No.	Parts of the hill/Forest	Specific god/ goddess/ spirit	Use for the Purpose
1	Entry part of the Jungle	Place of dead	Grazing land
2	Middle part of the forest	Un successful Spirit (Petni)	Collection of fire wood, and for house hol implements.
3	Foot hill	Place of good ancestor (Pidar)	Coolection different some for household use and other purposes
4	Middle part of the hill	Abode of god and goddess (Penu)	Use for hill cultivation
5	Upper part of the hill	Abode of Soru Penu	Worshiping purpose/ prohibit for any domestic use.

In Kandhamal, Kondh maintains the local hill by utilizing the indigenous knowledge, which is controlled and regulate by the religious belief system. The hill and forest are being taken care by the local kondh as they fully depend on the forest

natural resources for their livelihood and survival. They divided the hill into different parts and one specific part is meant for specific purpose only as discussed above in the table.



Fig:4



Fig:5

Fig. 4 and 5: Sacred Grooves of Kandh of Phulbani, Kandhmal.

Health Practices

Primarily, it is believed that illness is caused by displeasure of spirits or ghost (*Petni*), sometimes it also happens due to annoyance of the god or goddess. Ancestral spirits (*Pidar*) bestowed sufferings if they do not get proper care from the concerned family. The dissatisfaction of such spirits, ghosts, gods and goddesses need honour through rituals performance for them. In this circumstance a pig/ he-goat/ a cock scarify for recovery of health. If the spirit/ god /goddess are good, the person will recover with one animal sacrifice only. If not, another animal is butchered until the concerned god /goddesses or spirit gets healthy bile. This activity is participated by the sick person's relatives, neighbors

and friends who come to partake of the meat. Aside from using rituals for healing, the people make use of herbal medicine, many of which have proven effective and beneficial especially in the absence of modern chemical drugs. Now a days the introduction of modern medicine has resulted in the decrease in use of herbals (*Behera and Das; 2015*).

Importance of Indigenous knowledge

Indigenous Knowledge and Sustainability explores the importance of indigenous values and spirituality in providing guidance for sustainable living of Kondh. Such principles and values encourage a spirit of harmony between people, their natural environments and their spiritual identities. The principles for living sustainably that flow from these

and other cultural and religious beliefs vary between groups and communities (Smith; 2008). They have also changed over time as circumstances demand. Despite this diversity, many principles for living sustainably are shared, not only among indigenous Kondh peoples, but also between different caste and religious traditions. This module explores the role of culture and religion in providing guidance on ways of living sustainably. It also provides activities which analyze the place of these themes in the school and College Technical and non-Technical curriculum.

This study provides an overview of recent scenario that clearly portray the active role that rural communities and other parts of the world have played in (a) generating knowledge based on a sophisticated understanding of their environment, (b) devising mechanisms to conserve and sustain their natural resources, and (c) establishing community-based organizations that serve as forums for identifying problems and dealing with them through local-level experimentation, innovation, and exchange of information with other societies (J Salazar and others;2008).

Indigenous Protection Systems for Resources

A few mechanisms for the protection of resources include the belief system which serves to control the use of resources. For instance, the belief that spirits inhabit nature and that a god owns resources like gold inhibits the abuse of the resources since people fear retribution. Illness is believed to be caused by spirits or ghost (*Petni*) affected by human activity like cutting of trees or polluting water sources. In order to avoid illness, people observe these taboos. Kondh also make rules on how resources should be treated. In the past, people only mined what they needed and made sure that the mine site was free of garbage. Trees near water sources were allowed to grow. Other beliefs prohibiting people, especially the young, from frequenting forest areas struck by lightning also allows the place to regenerate (M. Chowdhury and others 2009).

The indigenous socio-political system like the council of elders or decides on penalties for violations of these taboos for consumption and utilization of natural resources. Resource protection practices in agriculture include allowing the land to lie fallow for a few years so it can regenerate and become productive. They return to the old field after

six years. Protection of resources from outsider exploitation among Kondh peoples is weak because of the indigenous tradition of sharing nature.

Indigenous and Western knowledge systems

The challenge of supporting the survival of Indigenous cultures depends on a commitment to respecting the cultural values that inform Indigenous knowledge and belief systems. While this may seem like a simple task, it is not. Indigenous and Western worldviews are very different. This means that I may not even be able to identify some important beliefs, much less respect them. We all interpret the world around us from the lens of our own experience, so it is no simple matter to understand the world from the viewpoint of another person's experience—especially when that experience arises from a totally different cultural basis. Therefore, a first step in conducting research in such a way that it supports the survival of Kondh Indigenous cultures is to obtain an understanding of Indigenous worldviews.

Cultural and intellectual property

The protection of Indigenous cultural and intellectual property is essential if Indigenous cultural values are to survive, but at times the protection of these property rights is at odds with the advancement of scientific knowledge. The debate over 'who owns the past' runs particularly 'hot' when it involves the cultural and intellectual property of Indigenous peoples (Nicholas and Bannister 2004, Smith and Wobst 2005). Indigenous critiques of anthropological practice have opened up the discipline in constructive directions. These critiques, like the earlier critiques of Marxists and feminists, today set new accents and directions for an anthropological practice that is politically aware of, sensitive to, and harmonious with, the goals of Indigenous peoples.

Anthropologists normally assume the answers to these kinds of questions. We often take it as self-evident that archaeology is useful, and that we have a responsibility, as well as a right, to control and create the pasts of others. It seems clear to us that this needs to be done and that it needs to be done in the scientific, rigorous manner that is anthropology. Rarely, do we seriously consider non-Western approaches to caring for cultural heritage, or question the agendas that are furthered by the work

and how that work supports or impedes Indigenous cultural survival.

While a number of international conventions, declarations and codes have been established (e.g. World Archaeological Congress 1991), in any given situation the success of cultural and intellectual property measures are dependent on the affected people being aware of their rights and then having the option to consent (or not) to the use of their material. This situation is often complicated by the fact that the 'ownership' of much knowledge is not an inalienable, individual property for Indigenous peoples, but instead a property of groups (e.g. families, clans or language groups). The repatriation of human remains is a major focus of concern for Indigenous peoples globally. While different Indigenous groups may have different views on human remains, there is a general concern that these remains be treated with respect, usually by the Indigenous groups.

Living landscapes

The incorporation of Indigenous knowledge systems into archaeological practice produces a broadening of the interpretative lens. This can be seen in the notion of a 'living landscape.' From a European perspective, culture is clearly made by humans. For Indigenous peoples like Kondh, however, culture can be nature, or an outcome of human's long interactions with nature. In fact, the landscape itself is a cultural artifact, not just in terms of human changes to the environment but also because ancestral beings and the spirits of those who have died in the recent past inhabit the landscape, and continue to monitor the management of their Land at present.

The landscapes (specific part of the forest or hill) inhabited by Indigenous Kondhs are imbued with meaning, redolent with power. Natural signs, such as birds, Tiger, many other animals or flood and cyclone can act as signs from ancestral beings or individuals who have passed away. The landscape needs to be traversed with care, and there are many places that can only be accessed by people with particular rights or knowledge. When Kondh people visit sites they have not been to for some time, they call out to the old people whose spirits still inhabit these places, telling the spirits that they don't wish to disturb them. If they wish to do something special, such as retouch rock paintings, they ask permission

from their ancestors, making sure that they do not incur their wrath through showing disrespect. Senior traditional kondh says: 'Those people are living and listening now, they're not deaf.'

For a living culture based on spirit of place, the major part of maintaining culture and therefore caring for place is the continuation of the oral tradition that tells a story. The process of re-creation, rather than reproduction is essential to the reality of Indigenous people. To them, reproduction is unreal, while re-creation is real (Janke, 1999:8).

The politics of language

The survival of Indigenous cultures is entwined with an understanding of the manner in which language has been used to underwrite colonial stereotypes and power relations. People constitute each other and themselves through language, in the process establishing, normalizing or challenging inequalities. As Said (1978:5) says in terms of 'Orientalism', words are ideas, emerging from a history and tradition of thought, shaped peoples, and the politics of language has been a focus of much scholarship by Indigenous researchers. It is well understood by Indigenous peoples, and the politics of language has been a focus of much erudition by Indigenous researchers. But its most important area of domination was the mental universe of the colonized, the control, through culture, of how people perceived themselves and their relationship to the world. Economic and political control can never be complete or effective without mental control. To control a people's culture is to control their tools of self-definition in relationship to others. For colonialism, this involved two aspects of the same process: the destruction or the deliberate undervaluing of a people's culture, their art, dances, religions, history, geography, education and literature, and the conscious elevation of the language of the colonizer. The domination of a people's language by the languages of the colonizing nations was crucial to the domination of the mental universe of the colonized (Ngugi wa Thiong'o 1986:16).

While the use of language and images has been critiqued extensively by cultural theorists in regards to stereotypes, such as those of Indigenous peoples as "children of nature", "primitive" or as "noble savages", it is only recently that we have given serious consideration of the manner in which the

discourse of anthropology and archaeology reinforces the assumptions and inequities of colonialism by associated imagery and, in turn, shaping the realities of these concepts, and the worldviews of the people who use them. But its most important area of domination was the mental universe of the colonized, the control, through culture, of how people perceived themselves and their relationship to the world. Economic and political control can never be complete or effective without mental control. To control a people's culture is to control their tools of self-definition in relationship to others. For colonialism this involved two aspects of the same process: the destruction or the deliberate undervaluing of a people's culture, their art, dances, religions, history, geography, education, art and literature, and the conscious elevation of the language of the colonizer. As many scholars have pointed out, colonial discourse served the purposes of the dominant state (*L. Smith 1999; various papers in Wobst and Smith 2005*). The British colonization of Australia, for instance, used the term "Aboriginal" to collapse the cultural and geographic boundaries of more than 600 diverse Indigenous groups, each of which had its own political system, laws and language, into the single category of "Aboriginal".

Reversing colonial stereotypes through a focus on Indigenous worldviews, Language can be used for the empowerment of Indigenous peoples, rather than for the empowerment of the status quo. Most importantly, it can be used to acknowledge and validate Indigenous authority as an essential component in the survival of Indigenous cultures.

Written versus oral histories

Indigenous cultural values also come under threat through the kinds of evidence that are accepted by researchers, administrators and courts of law. In colonial modes of thought written histories are characterized as abstract, objective and reliable, while oral histories are viewed as emotional, subjective and changeable. The privileging of written histories over oral histories lies at the heart of recent controversy over the building of a bridge to Hindmarsh Island, in traditional lands of the Narrindjeri people, in South Australia (Bell 1998). By interpreting the world from the Western perspective of relatively open access to knowledge, this decision failed to recognize that Indigenous

knowledge often is segmented by qualities such as age, gender, creating a fine and intangible cultural web (Bell 1998). Embedded in a Western tradition of dichotomised hierarchies, the Commission consistently gave greater credence to historical and ethnographic records of European scholars than to Indigenous oral histories—the ranking of oral and literary traditions is so naturalized that it masks the Ethnocentrism on which these rankings are based (Bell;1998).

Ironically, deep antiquity can be demonstrated for oral histories in Kondh community, including the myth, and story, which have a Dreaming story of pool and river waters rising and cutting off trees to make that land usable for township, road which creates more dry and barren land, and Anthropologists record that this event occurred around 70 to 80 years. Thus, the core of this oral history can be tied to a scientifically recorded event from then.

Sharing the benefits

The survival of Indigenous cultures can also be facilitated through fairly sharing the benefits that derive from research. The system inherited from colonial structures is one in which academics accrue the long-term benefits of research, while Indigenous people get no benefits, or only short-term benefits. Yet much archaeological research is informed by Indigenous knowledge, and a great deal of it could not be produced without the assistance of Indigenous people. While researchers bring skills to a project, often they do not provide the primary data. It follows that both Indigenous people and researchers have rights in the intellectual property that arises from such research, since both were essential to the outcome. One way to conceptualize this is to think of research as a kind of soup, in which different people provide essential ingredients. Though there may be a "chef" (the researcher, either Indigenous or not), that particular soup could not exist without the full range of ingredients (both Western and Indigenous knowledge), and all the people who provide those ingredients have rights in that soup. It seems logical, then, to assume that all people involved in the research should benefit from its outcomes.

In the past, often researchers have not paid Indigenous people at all, partly on the assumption of scientific right to knowledge, but also due to an

associated belief that all people have a responsibility to contribute to the 'growth' of knowledge. More recently, researchers are likely to recompense Indigenous people for their time, though there are still many instances when Indigenous people are interviewed without financial compensation. Moreover, even when Indigenous people share in the short-term benefits of research, they rarely share in the long-term benefits, even though they contribute essential ingredients to the academic soup. There are several factors that have contributed to this: the time delay between fieldwork, publication and promotion; that the benefits of scholarship are acquired indirectly; the distance between fieldwork locales and universities; and that the research product has a different shape to what is created in the field.

The critical point here is that the benefits of research emerge some time after the fieldwork has been undertaken, sometimes many years afterwards, and that the financial benefits of research are accrued indirectly. The time lapse between fieldwork and research outcomes contributes to researchers forgetting or minimizing Indigenous contributions to the research. However, Indigenous peoples are fully aware that academic careers are built on their knowledge, and sometimes anthropologists and archaeologists as 'mining' Indigenous knowledge.

From this viewpoint, researchers extract knowledge from the community and take it back to the academy to turn it into something else, without further consultation with, or input from, the community. Often, the resulting product is not returned to the community, but has a life independent of them. For instance, the anthropological research conducted by Evans-Pritchard with the Nuer during the 1930s (Evans-Pritchard 1969[1940]), whilst renowned and highly esteemed within academic circles, was unfamiliar to community members only twenty years later. In a sense, the subjects of research are permanently commandeered into scholarly spheres, but the scholarly works are not integrated into Indigenous spheres. On the other hand it may be called as typical of the colonial process.

A related trend is that of archaeologists choosing to share the financial benefits of research. Increasingly, royalties from books on Indigenous topics are being directed to funds that are dedicated to assist Indigenous scholars. For example, the royalties from

Skull Wars (Thomas 2000) are directed to the Society for American Archaeology's Native American fund. Similarly, royalties from the Indigenous Archaeologies Series published by Left Coast Press are used to support Indigenous attendance at meetings of the World Archaeological Congress. While the sums involved may be relatively small, the motivation behind such gestures is to share the financial benefits of archaeological research with people whose culture makes that research possible. Depending on the particular publication, this is being done in terms of individual communities, specific target groups, and the wider Indigenous community.

Indigenous voices

One important way of facilitating the survival of Indigenous cultures is through supporting Indigenous voices. There are Indigenous peoples living in different parts of the country these groups are in disadvantaged positions in comparison to dominant populations. Especially in economically disadvantaged countries, they are those people whose voices are the least likely to be heard in a global forum. The current increase in Indigenous voice in the literature of archaeology and related disciplines reflects two trends: firstly, an increase in co-publication by anthropologists/archaeologists and the people with whom they work and, secondly, the increase Indigenous academics and researchers. The publications being put out by these researchers are playing an important role in having indigenous Knowledge shape contemporary archaeological Practice.

Related to this is an increased Indigenous participation in international forums. At one level, this is a natural outcome of the increased number of Indigenous scholars in economically advantaged countries, such as Canada and the USA. However, there is also a trend for researchers to share the benefits through ensuring that community members can travel to participate in archaeological meetings. Sometimes, this travel is undertaken at the behest of an Indigenous community which is seeking to enhance its Knowledge in a particular area, and this can involve not only travel within that person's country, but also overseas.

The Indigenous scholars or community members who attend international forums obtain a deeper understanding of the research process and are better

able to actively participate in the shaping of anthropology or archaeology as a discipline. In addition, attendance at anthropological and archaeological conferences has value for Indigenous people, not only through having their voices heard, but also with opportunities for alliance, both nationally and globally. Such allowancing allows Indigenous peoples to share strategies for success, avoid pitfalls and develop both personal and group strength.

All of these are important to the survival of Indigenous rights & cultures. The challenges and opportunities of globalization the second International Decade of the World's Indigenous People began in 2005, in a context where increasingly decisions that affect Indigenous peoples and their communities are made at the global level, far away from local realities. Throughout the world, Indigenous people are attempting to have their voices heard in the global decision-making that affects their lives, and at the national level, where their mobilization can translate into political muscle. But many challenges remain in the fight for recognition of their rights.

Indigenous people around the world are finding common cause in their struggles to retain their identities and their land. In some cases, Indigenous peoples find they have more in common with each other at a global level than they do with the other peoples who share the countries in which they live. Traditional communities like Kondh of Lanjigarh are fighting for recognition to their indigenous livelihood and life style along with land in Niyamgiri hill of Kalahandi and strong resistance was faced by administrators and stake holders. Displacement from their traditional lands is devastating outcome of globalization in many parts of the world—though Indigenous peoples actively fight for retain the same. In Niyamgiri, Kalahandi of Odisha Dangaria Kondh took the matter to the court of law for their eviction from Niyamgiri hill. Another example of Botswana, the Gwii and //Gana Bushmen took the State to court following their eviction from the Central Kalahari Game Reserve. In the early 1990s, the mass settlement of Javanese people on the island of Kalimantan, formerly known as Borneo, precipitated a successful jungle warfare campaign by local Indigenous peoples, and in Sri Lanka, a recent planned mass resettlement of more than 100,000 people was displaced by fierce battles

between the Sri Lankan army and Tamil rebels in the eastern Batticaloa district (Choudhuri; 2009).

Global situation of Indigenous Knowledge system:

In some cases, displacement is caused by the deterioration of local environments, due to economic exploitation of natural resources. Communities that lived off fishing and forest produce on the Chiloe archipelago in the south of Chile for centuries have now begun to leave. They could deal with the difficult conditions, but the deteriorating environment cannot sustain them all anymore. Other communities in this part of the world are under threat from mining and industrial activities that have damaged the quality of water, and hence the ability of herder communities to keep animals: while people can boil water for their own use, animals are dependent on the quality of water in streams and rivers. While the situation is better in economically advantaged countries, these countries still have their problems. In Canada, for example, there appears to be no quick resolution to the long-running land rights battle between First Nations groups and mining and logging interests that have been granted concessions to exploit the resources in a vast boreal forest known as Grassy Narrows. The World Bank is implicated in some of these controversies and in the Democratic Republic of Congo it has been accused of breaking, its own rules to support commercial logging at the expense of pygmy lands and Livelihoods.

In South America, Indigenous peoples hailed the election of Bolivia's leftwing indigenous President Evo Morales. Morales has a strong agenda for Indigenous people in his nation and, indeed, in the region as a whole. Representatives of the foreign oil companies active in Bolivia recently ceded control over their operations, and agreed to pay a higher proportion in royalties and taxes. Recently, Indigenous leaders held a regional congress in Bolivia to discuss strategies to oblige governments to make state policy the Declaration on the Rights of Indigenous People, adopted by the United Nations General Assembly on 13th September, 2007. The congress was described by Nobel Peace laureate Rigoberta Menchú as a way of demonstrating support for the work of President Morales, who convened a constituent assembly to rewrite the constitution to recognize Indigenous peoples'

cultural values, customs and right to land and self-determination.

Positive developments include growing recognition of the key role played by Indigenous peoples living across Asia and the Pacific in forest conservation, and the increasing use of Indigenous knowledge to enable the commercialization of innovative biomedical technologies that improve human health. Around 62 percent of all cancer drugs approved by the Food and Drug Administration in the United States have been developed from products in which the active ingredients have been identified by Indigenous peoples. Latin American nations, especially those nations along the Amazon, have extremely rich and diverse flora, so the potential for commercial applications in these regions is particularly rich. While only about one in 10,000 is worth commercial development, the few that are developed can produce lucrative returns. Southern Africa is another region in which biotechnology is reaping economic benefits for Indigenous peoples. In 2006 the application of San Traditional Knowledge (IK), Intellectual Property Rights (IPR) and Access and Benefit Sharing (ABS) produced an historic offer from the South African Hoodia Growers to pay 6% of all their Hoodia sales to Working group of Indigenous Minorities in Southern Africa (WIMSA). This agreement holds huge benefits for the San, out of the huge and booming Hoodia market, and brings benefits not only growers but also to the harvester of Hoodia (En.wikipedia.org).

Discussion

Cultural, technological, and economic changes have eradicated many indigenous groups throughout the world. Innumerable indigenous cultures died out because of European colonialism and genocidal practices between the 16th and 20th centuries. Today, environmental pressures, economic incentives, and religious missionary works are continued to endanger the existence of indigenous cultures.

Because of the depletion of resources, new forms of protection and conservation are now evolving. Some people in Tuba are engaged in seed banking where indigenous seeds, especially rice, are selected and stored but shared with others during the planting season. Other indigenous plant materials are also propagated. The deliberate maintenance of diversity

in domesticated and non-domesticated plants and animals characterizes farming systems across the African continent as well as in most other parts of the world, providing an important opportunity for systematic in situ maintenance of genetic resources. Informal agricultural research and development systems parallel those of national governments, providing another opportunity for national agricultural research and extension services to work with the creative interests and activities of farmers and other rural people.

A growing global network of regional and national indigenous knowledge resource centers is involved in documenting the historical and contemporary indigenous knowledge of numerous ethnic groups around the world. Much of this knowledge is at as much risk of being lost as is the case with biodiversity (Linden 1991). These centers reflect new values that recognize indigenous knowledge as an important national resource. The centers are establishing national indigenous knowledge data bases, giving recognition to their citizens for the knowledge they have created, providing a protective barrier for the intellectual property rights of knowledge that could be exploited economically by the country of discovery, and laying the foundation for development activities that build on and strengthen the existing knowledge and organizational base produced through many generations of creative effort by local communities.

The disciplines that study Indigenous cultures have inherited a legacy that is deeply colonial. The colonial process was grounded in a desire to conquer unknown worlds. Artifacts became the material proof of a nation's conquests, establishing what Said (1978) calls the 'positional superiority' of the colonizers; Encounters with a cultural 'other' was theorized as exotic', and as such worthy of scholarly attention.

The collections of colonizers represented the paradox of unknowable, yet known, worlds. When placed in museums, each new display was transformed by its context into a symbol of the European ability to know and control the uncharted worlds of the colonial is exotic. An appropriation of Indigenous cultures, achieved through research and representation, was integral to this process. Little thought was given to how these cultures would survive the onslaught of colonialism. In fact, it was

often assumed that they would die out and that the best the colonizers could do for Indigenous peoples was to smooth the dying pillow.

For some decades, the colonial invasion of various parts of the world by the Spanish, British, French, Dutch and Portuguese was interpreted as the beginning of the end of Indigenous cultures. After the battle of Buxar in 1764 India was occupied by East India Company and colonization started in India. In 1803 Odisha was captured by the Britisher, at first the colonialism was started in Balasore, Puri and Cuttack district, more over In 1835 Ghumsar was occupied by the British government. As undivided district Phulabani (Newly Named Kandhamal) was under Ghumsar state, the colonialism also started in Kandhamal district (Nayak; U.C. History of Kandhamal; 2015.). The Britisher then gradually annexed Baliguda (Uttar khemundi) region in phases from 1830 to 1930 by successively subjugating local hill chiefs ([www.kandhamal district portal](http://www.kandhamal-district-portal.com)). Here the colonization started along with religion conversion. So that the earlier life style of the Kandh of Kandhamal was considered as the outdated one. Today however, it is clear that these cultures have survived, though their outward shape may have changed and some are still under threat. The outcome of the process of contact has taken different shapes in different parts of the world, in the same way that Indigenous cultures had different shapes prior to contact with Europeans. While they have undergone radical changes in many parts of the world, Indigenous peoples have drawn upon the flexibility and strengths inherent in their cultures to ensure their survival. In this process, the Indigenous peoples like Kondh have chosen to adopt the tools that were used to change, control and dispossess them, in order to ensure the survival of their own societies and cultural values (Vizenor 1999).

In an interconnected world, Indigenous peoples face new challenges and new opportunities. The challenges relate to their social and physical environments, with concomitant pressures towards radical change, while the opportunities lie primarily in the potential for global aliening with other Indigenous peoples and the development of niche economic enterprises.

My final point in terms of repatriation is that there is a time lag in global trends: in colonized nations, such

as Canada, the USA, New Zealand, Australia and South Africa, the quest for the repatriation of human remains from museum collections has been underway for the last two decades but in less economically advantaged nations, such as Chile, Argentina and India, this battle is only beginning. In all of these cases, however, the final issue is whether Indigenous peoples will have control over Indigenous culture.

Core findings of the Study

After the rigorous observation of the Indigenous Knowledge of the Kondh community of Kandhamal district of Odisha, I found some important points are:

1. Kondh of Kandhamal have unique life style i.e. we can call it as indigenous life style
2. The Indigenous Knowledge and belief are stamped as old age tradition
3. Due to increase of religion conversion to Christianity, the age old tradition is now losing its importance.
4. As per the modern Education system and dominant Indian typical Christian tradition, the indigenous practices are considered as antiquated shameful for educated Kondh people.
5. Now-a-days Kondh young are not much interested towards the Kandh tradition as it is old-fashioned one for them
6. Some converted people are misleading the young and divert them to indulge in unlawful activities rather than observing of the Kandh tradition.

Conclusion

The Indigenous community Kondh religion and culture were encountered by European colonizers and religious conversion contained complex and refined social structures. However, these situations are getting critical. Europeans colonizers assumed that these peoples were 'backward' or 'primitive'. In fact, the opposite was the case: the human intellect and energy that Europeans had put into building sophisticated and elegant material edifices were used by Indigenous peoples. And that situation is continuing in this area till date. There are so many churches and Christian schools developed in the

district and the students who completed their study in these schools, dislike the old tradition and knowledge by stamping it as age-old tradition. The survival of these rich and diverse Indigenous cultures is dependent on continuity in cultural practices, which itself depends on Indigenous control over Indigenous cultures. If Indigenous cultural values are to withstand the onslaught of globalization, Indigenous peoples need to have control over their lives. The United Nations' Draft Declaration on the Rights of Indigenous Peoples (Part Six, Article 29) affirms that:

"They have the right to special measures to control, develop and protect their

Sciences, technologies and cultural manifestations, including human and other

Genetic resources, seeds, medicines, knowledge of the properties of fauna and

Flora, oral traditions, literatures, designs and visual and performing arts".

In spite of above rights and privileges Kondh Cultural continuity is threatened when Indigenous people lose control over their cultural and intellectual property, and facilitated when non-Indigenous people work within a framework of Indigenous control, subject to Indigenous cultural rules. Given that differential access to power is at the core of colonial relations, it follows that conducting research that facilitates the survival of Indigenous cultures involves a re-thinking of power relations between Indigenous and non-Indigenous peoples. It involves moving from the colonial assumption of a right to acquire knowledge, to recognition of Indigenous peoples' rights to protect their cultural and intellectual property and to share knowledge on their own terms. This process moves Indigenous concerns and values from the 'outside' to the 'centre', and is dependent on a commitment to the strengthening of Indigenous knowledge systems. During this present day Pandemic situation everybody and everywhere people realizing the importance of the indigenous food, clothing, shelter as well as their way of life, therefore it fetches more attraction to the world. In this circumstance the indigenous knowledge of the Kondh community should be protected for the welfare and smooth life of the Kondh communities as a whole.

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Visualising the Problems of the Widows in Odisha in the Context of Manusmriti

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Abstract

Widowhood for a woman is a very painful incidence and unarguably more inhuman to woman rights. It is often necessary for woman to comply with the social customs of her area because of her fiscal dependency, emotional attachment, insecurity, lack of safety and physical disabilities in her own in-laws family. The present paper gives a description of the origin of all such customs in Odisha. While narrating all the aspects of widowhood that run in Odisha the paper will also speak about the most sacred script of Manu and how it is believed in society and later on in Odia culture with reference to some case studies which will explain the visible reality in Odisha.

Key Words : Widow, Odisha Manusmriti

Introduction:

Hindu women were historically known for ensuring the physical and moral salvation of their husbands, especially in their role as wives. As such they were ideally expected to integrate values like eternal devotion and service to their husbands in order to gain long life, good health and spiritual upliftment. According to the Brahmanical authorities, a wife's primary purpose was to be auspicious for her husband in all walks of his life. If she was responsible for the quality and length of her husband's life, then conversely also she was seen as responsible for his death. The demise of a husband is culturally translated into the loss of approved social identity for a wife and for all practical purposes; the wife has to enter widowhood. Thus, a husband's death resulted in the "social death" of his wife, and thereafter starts the beginning of her life as an inauspicious widow. She is restrained through the imposition of severe proscriptions on her food, dress, and ritual participation along with limited freedom to remarry, insecured property rights, restricted employment opportunities, and lack of social support.

Culture is observable through the systematic and consistent observation and can be analyzed with several differentiations which vary from one culture to another. Seeing all these variation and writing about them makes us curious to start the pilot survey

that had been conducted in the year 2013 during the month of *Kartika* called as *Habisha* month in Puri district (middle of October to middle of November). The society and culture of widows in Puri district had largely influenced us to take some steps to know about such women in their own households which were enormously an overwhelming and emotional experience about such women. In this journey we observed that widows of different districts maintain many complex lifestyles; their entire world was concentrated to one point that is mourning which becomes a recurring motif throughout their life. The problem that need addressing due to the impact of their existence on Hindu society in a large number, where culture plays a vital role in deciding their status, their emotions, their positions in society , their work, their entire role and mostly their future.

Indian perspective:

In India, there is often an elaborate ceremony during the funeral of a widow's husband, including smashing the bangles, removing the "bindi"(vermilion mark) as well as any colorful attire, and requiring the woman to start wearing white(the colour of mourning) clothes for the whole life . Earlier it was an inhuman tradition to compel the wife to throw her body into her husband's burning funeral pyre which was popularly called as the tradition of "*Sati*". However, in modern-day culture the norms for clothing have gradually given way to

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coloured clothing, and *Sati* practice has been banned in India for more than a century. The ban began under British rule and was much owed to the persistence effort of social reformer Ram Mohan Roy, who asserted that *sati* was a means of showing status rather than a universal ritual in India, and that there are other ways of doing it than by burning wives. Few scholars have attempted to observe and analyse such inhuman practices in India. They have also assessed the suffering state and status of the widows in their publications. Some such publications are

Martha Chen's (1998 and 2000) books on widows, and recently the first intensive local case study of women and property rights conducted by Srimati Basu in New Delhi (1999) are few remarkable books on the women and widows. These investigations clearly demonstrate that understanding women's access and rights to land, and other forms of property, is a key element in the study of women's status. Also, these studies confirm women's marginal land and property ownership rights despite legal reforms (Agarwal 1994; Chen and Drèze 1995; Chen 2000). In these books one of the basic points is that social mores often discourage widows from remarriage and dictate changes in their diet and behavior, and widows are often unwelcome at social events and religious festivals and avoided by others because they are considered bad luck.

"Nari: facets of Indian womanhood" by C.M. Agrawal and in "Widows versus daughters or widows as daughters, Property, land and economic security in rural India", Bina Agarwal explains various social factors which influence the severity of the crisis, including age, education, employment, support by adult sons, support from the ex-husband's family, and support from the widow's natal family. How do Maharashtra Hindu widows (and their children) cope with the loss of a senior male worker and property owner? How, and to what extent, do they take advantage of available legal reforms? The overall, the status of widows in Maharashtra is changing, as more alternatives to their state of dependency emerge. Recent local case studies in rural areas discuss the tremendous diversity in the experiences of women, which demonstrate that women are the worst victims when they are widowed.

In "The position of women in Hindu civilization from prehistoric times to the present day" by Altekar, A.S., (Delhi: Motilal Banarsidass, 1959), it is discussed that in order to understand how Indian women interact with various perceptions of social order and modes of conflict resolution, it is important to investigate key elements of their lives such as household dynamics, kinship systems, marriage rules, economic resources, inheritance patterns, gender socialization, caste organization and concepts of rights and duties. In addition, to explain access to property rights and the legal system, it is necessary to examine how the social status and legal status of women are both changing

Odishan Perspective

In Odisha, as in other societies, culture regulates the life of individual through its belief, customs, rituals and its encrypted rules in different cultural practices. It is believed that man has to go through a cycle of rebirth (*punarjanma*). Man's life is the supreme life among all the animals on the earth. It is usually believed in Hindu India that to get a good or better life one has to do a number of good works in his/her previous life cycles. It is also believed that at the time of leaving the body if the air (*prana bayu*) of life in a man passes through the mouth, eyes, nose, ear or the head vault then he is a good person but if it goes through anus, then the person is said to have done very shameful work in his entire life and considered as *Papee (sinful)* (Book: After Life and Death by Prajyananda and Antesthikriya by Pt. Shri Lingaraja Tripathy). These books are the small sized books that are read and practiced by the widows in Puri district, our working area. These books explain that there are two airs (*bayu*) in human body: one is air for life and other is air for body. When both airs split from each other then the air for life goes up to the atmosphere while the body is left lifeless on the earth surface. The air which goes up to the atmosphere is known as soul. That soul goes through several *lokas* (space) to reach *Pitrloka*. In Odisha people believe that if someone dies then a 10-13 days long rituals is essential for the smooth passage of the soul from *Pretaloka* (hell) to *Pitrloka* (Father's or forefather's soul-generations). After the mortuary rites are over, the soul makes journey through 16 *lokas* such as *Soumya, Sauripur, Nagendra Bhaban, Gandharba Saila, Agama, Kroncha, Krurapur, Bichitra Bhawan, Brahmopada, Duhkhada, Nanakandpur,*

Sutapta Bhawan, Raudrapayabarshana, Bahubhiti and Dharma Bhaban. During the fieldwork we had encountered several individuals who are silent followers and blinded by such cultural notions. These notions were taught by the *Pandits*(priest-

teachers) in Jagannath Temple. These are the practices which were followed mostly by Brahmin women and accordingly imitated by all widows of all districts.

(1) Study Villages for Research:

The present paper has been prepared out of the empirical data collected from among the widows of the following villages of different districts in Odisha.

Sl no	Name of the Area/Village	District	Number of widows Interviewed	Time Line
1	Kanasha village and Mathas around Jagannath temple, Puri	Puri	102 case studies	November- December 2013(Two months)
2	Kabitra, Gambharia, and Tulashipur	Keonjhar	50 case studies	October-November 2014(Two months)
3	Buguda, Biranchipur, Adipur	Berhampur	99 case studies	November-December 2014 (Two months)
4	Sindrimala, Sorishamala, Bandhaguda	Malkanagiri	50 case studies	February 2018(Fifteen days)
Total	10 villages and 15 Mathas	4 Districts	301 case studies	6 months and 15 days

(2) Problems in specific: In our enquiry on the state of the widows, the following points have been included.

Sl no	Problems studied in specific	Affected widows from research area	% of affected widows	Affected widowers from research area	% of affected widows
1	Financial dependency	280 case studies were dependent	90%	5 were dependent and others are not	70%
2	Emotional dependency	280 cases were dependent	90%	4 found to be dependent and others are not at all	20%
3	Physically Tortured, Beaten,	70 cases were significant	30%	_____	_____
4	Emotional Mourning, Crying , Depression, Loneliness	290 case	100%	11 cases	100%
5	Health issues like Cold, Cough, Fever, Loose-motion and common headache, Joint pain and lack of eating, Trembling, Motor-disability, Forgetfulness	72 women aging above 50 show all the symptoms .But below 50 age are having no such symptoms	30%	4 such aged men show all the symptoms but others are not as because they are in their 50s	50%
6	Attending social events	Only 30 widows says that they go for such events	10%	All	100%
7	Decission making process	Only 15 widows were asked for their opinions.	5%	All	100%

The context of *Manusmriti* and its reflection in Odisha:

The most famous book accepted by the Hindu society is "*Manusmriti*" as regards socio-cultural behavior and their regulation. This book had influenced the entire Hindu world, which we can also see in Odisha without exception. Mostly the coastal belt is highly influenced by its prescriptions. The *Manusmriti* is also otherwise known as *Manav Dharam Shastra*, the earliest ever work for regulating human society through its verses. This work had influenced Hindus for at least 5000 years. Because people believe that Hindus will be able to go to heaven (*Baikunthapura*) if they follow the instructions of *Manusmriti* in their life. According to Hindu mythology, the *Manusmriti* is the voice of Lord Brahma, and it is classified as the most authoritative and sacred statement on Hindu Dharma. The scripture consists of 2690 verses and is divided into 12 chapters. Following are some shlokas for the women and how she can go to Heaven if she follows the rules in her life time.

"*Swabhavennarinam*" – Chapter-2/Verse- 213.
"It is the nature of women to seduce men in this world; for that reason the wise are never unguarded in the company of females".

In coastal belts of Odisha we had all the rituals maintained by women only and male members just as a part of the society play minor roles in all such rituals. In this way all the people maintain this rule either intentionally or unintentionally. So it is highly criticized when a boy and a girl found gossiping alone in a secluded place. Normally the girl gets a bad name in the society and she is not chosen for marriage and her parents were blamed for her activity. In rural Odisha traditionally all females are restricted to move out and study with male members. But at present it is highly objected in Odisha. In town area it is a different scenario where women are now allowed to go to any extent for getting education.

"*Avidvamsamlam*....." – Chapter-2/Verse-214.
"Women, true to their class and character, are capable of leading astray men in this world, not only a fool but even a learned and wise man. Both become slaves of desire".

Many epics explain that this verse is true in all sense ideally but in actuality, situations during last 50 years

in Odisha and contemporary society had different experiences in this regard. Women are unable to uncover their reality as powerful spirits; they are just being raped, murdered or beaten. Policies, newspapers and other sources of information are explaining that women should be protected and maintained by family members but practically they are most vulnerable often leading a very difficult life.

"*Matraswastra*" – Chapter- 2/ Verse-215.
"Wise people should avoid sitting alone with one's mother, daughter or sister. Since carnal desire is always strong, it can lead to temptation".

Manusmriti here explains the derogatory role of women be a mother, daughter or sister who can create temptation if they mix with men alone. In ancient society, such restrictions were prevailing explaining this verse as applicable for all Hindu religious people but now it has no significance as modern women and widows in specific are losing their identity in most of the cases. However at present it happens more in rural societies. As in rural Odisha gossip groups among the females promote such derogatory dimensions of women. People just criticize these aspects if any men sit alone with women in village area. Under such circumstances, widows are worst affected. In addition to their widowhood which becomes a severe curse in rural society, their interaction with the male foe whatever necessary reason common people never look at but criticize blindly.

"*Naudwahay*....." – Chapter-3/ verse-8.
"One should not marry women who have reddish hair, redundant parts of the body [such as six fingers], one who is often sick, one without hair or having excessive hair and one who has red eyes".

This is a very significant aspect for the marriage of a woman. In olden days and also in rural Odisha, people examine all the features of woman just like a market commodity for the purpose of marriage simply because of patrilineal order which has been duly supported by *Manusmriti*. In case, a person marries a woman having all such undesirable qualities, it is seriously considered if the husband dies due to some known or unknown disease or accident. Ultimately the widow in addition to her miseries of losing her husband gets a bad name throughout her life and all the time people link it to the breach of prescriptions in *Manusmriti*.

"Nrakshvraksh" – Chapter-3/ verse-9. One should not marry women whose names are similar to constellations, trees, rivers, those from a low caste, mountains, birds, snakes, slaves or those whose names inspire terror.

In Odisha people are not so serious about the names of women. The general consideration is that it should be a pleasing name and the priority is given to physical beauty. The caste factor is also given due consideration in rural Odisha. As regards name the men have no specific criteria for a woman's name. As of now in Odisha people still get rigid for love marriage and they hardly accept marriages out of elopement but it is accepted in some urban area where people had no joint family system. On the whole, the widows have no specific connection to this explanation of Manusmriti.

"Yastanabhavet" – Chapter- 3/ verse-10. "Wise men should not marry women who do not have a brother and whose parents are not socially well known".

It is once again another explanation where the conditions of marrying a woman have been mentioned in general and no specific mention about the widows. It takes a long time to find a suitable man for a single girl who has no brother and whose parents are not wealthy. Boy's parents always demand a huge amount of dowry if the girl looks a little black or if she had some bad looks. In the study area I observe that this rule is highly maintained.

"Uchayangh....." – Chapter-3/ verse-11. "Wise men should marry only women who are free from bodily defects, with beautiful names, grace/gait like an elephant, moderate hair on the head and body, soft limbs and small teeth".

These kinds of criteria make a woman more vulnerable during the process before marriage. Any man gets freedom to look at anything they want during the process of negotiation or engagement (*bandhucharcha*). *BandhuCharcha* is criteria before marriage where boy's parents went to see a girl in her house and all relatives of girl arrange a meeting. Grooms family never used to make the boy go to find the girl. It is his parents who chose the girl and properly investigate all these qualities to accept or deny her for their bride. Though such explanation of Manusmriti directly relate to the widows, it is directing to all women in general.

"Heenjastriyam....." – Chapter-3/ verse-15. "When twice born [dwija=Brahman, Kshatriya and Vaishya] men in their folly marry low caste Shudra women, they are responsible for the degradation of their whole family. Accordingly, their children adopt all the demerits of the Shudra caste".

Caste rigidity had made the entire Odisha confused with all levels of good outcomes from the marriages. This rigidity is fully maintained in coastal belts and other areas of Odisha too.

"Chandalash" – Chapter-3/ verse-240. "Food offered and served to Brahman after Shradh ritual should not be seen by a chandal, a pig, a cock, a dog, and menstruating women".

Due to this rule menstruating women are forbidden to do all kinds of work and remain in closed premises. This rule is very much in practice in Odisha and other parts of Hindu India. Odisha had maintained this since its knowledge is there in the society.

"Na ashniyat....." – Chapter- 4/ verse-43. "A Brahman, true defender of his class, should not have his meals in the company of his wife and even avoid looking at her. Furthermore, he should not look towards her when she is having her meals or when she sneezes/yawns". Although it is meant only for the Brahmin caste but it is really maintained in all the caste groups too and in all such explanations the factor of women is always there.

"Mrshyanti....." – Chapter- 4/ verse-217. "One should not accept meals from a woman who has extra marital relations; nor from a family exclusively dominated/managed by women or a family whose 10 days of impurity because of death have not passed".

In this section woman who is dominating is restricted to their rights for managing a family. But in Odisha most families were managed by the male members because of patrilineal order. So in all sections of society where women who get pension or family pensions are only the female dominant families. Many women are just managing their families and people had no idea about this rule in clear-cut sense. In Odisha it is very rare.

"Balyava....." – Chapter-5/ verse-150. "A female child, young woman or old woman is not supposed to work independently even at her place of residence".

This also restricted the freedom of women in many sides where Manusmriti is not at all relying on woman's ability to work. But in reality women in Odisha are having multiple tasks to complete including household works and work in landed property.

"Balyepitorvashay....." – Chapter-5/ verse- 151. "Girls are supposed to be in the custody of their father when they are children, women must be under the custody of their husband when married and under the custody of their sons as widows. In no circumstances she is allowed to assert herself independently".

In this rule a flaw is unexplained if a widow is not having any son or sons what should she do? Custody is also unexplained as to what is called as Custody? This is highly unethical to mark that woman had no mind or identity of her own and will always be dependent with any relative men.

"Asheela kamvrto....." – Chapter- 5/ verse-157. "Men may be lacking virtue, be sexual perverts, immoral and devoid of any good qualities, and yet women must constantly worship and serve their husbands".

We have observed this rule very clearly than any other rule from this book. No matter how their husbands treat them they all follow their husbands, even if they torture or beat, women never use to scold their husbands. This verse is the reason for women to feel very dependent emotionally on their husbands. So women can never have anything of their own for any aspect of life.

"Na aststrinam....." – Chapter- 5/ verse-158. "Women have no divine right to perform any religious ritual, nor make vows or observe a fast. Her only duty is to obey and please her husband and she will for that reason alone be exalted in heaven".

The concept of heaven is clear for woman if they please their husbands. This particular rule is completely prevailing largely in Odisha. Many widows explain that their husbands used to beat them but they were not answering or responding the violent behavior. Rather they just become silent victims of all these rules.

"Kamam to....." – Chapter- 5/ verse-160. "At her pleasure [after the death of her husband], let her emaciate her body by living only on pure flowers,

roots of vegetables and fruits. She must not even mention the name of any other men after her husband has died".

This is the verse which explains that women with widowhood must be very cautious of their own sanctity because this way they only can gain respect in their surrounding society. But in reality these rules were followed by widows to gain purity of their 'soul' so that they will never be punished in next life to be widow again. In Odisha this rule is followed strictly and if not then peer group and surrounding family members criticize it as loud as possible.

"Vyabhacharay....." – Chapter-5/ verse-167. "Any woman violating duty and code of conduct towards her husband is disgraced and becomes a patient of leprosy. After death, she enters the womb of Jackal".

Many women believe that their sanctity is most important and crucial. Widows normally responded to this view that if women follow this rule then only they can save their marriage. Widows always suggest that a married woman is more beautiful than single woman or divorced woman. Some widows say that if they don't follow the code for widowhood they will not get good fortune for their families. Many married woman also criticize if a woman do not follow her husband.

"Ya to kanya....." – Chapter- 8/verse-369. "In case a woman tears the membrane [hymen] of her Vagina, she shall instantly have her head shaved or two fingers cut off and made to ride on Donkey".

This particular verse is now not at all followed as because this is not known to most of the women as they say, even cycling or any other sports activity can tear the vaginal wall. Earlier it was believed to have direct connection with chastity of a woman. And woman are not expected to have her vaginal wall broken due to her activity (sexual or any other) within the four walls of the house.

"Bhartaram....." – Chapter-8/ verse-370. "In case a women, proud of the greatness of her excellence or her relatives, violates her duty towards her husband, the King shall arrange to have her thrown before dogs at a public place".

Many laws were not followed as because there are no circumstances arise for it. It says that woman can never feel proud on her achievement. But its

narration for feeling proud can be punished in this form is really offensive, whereas women in Vedic era are having very good literary knowledge and were appreciated for their achievements. But a wife can't appreciate others is very objectifying. Her every aspect for living a life is very much restricted as an object than an actual human being who can think and rationalize her own boundary in her own terms.

"Imam hi sarw....." – Chapter-9/verse-6. "It is the duty of all husbands to exert total control over their wives. Even physically weak husbands must strive to control their wives".

This verse explains that a wife is that creature which needs control over her social and physical aspects. Wife can no longer think about her own identity which shows that if the supreme power of her life is gone then how she would survive in this world. So the physically weak husband can strive to control their wives which mean that physically weak husband can marry and control his wife but can never teach his wife to be sufficient enough to fight the odds in life.

"Panamdurjan....." – Chapter-9/ verse-13. "Consuming liquor, association with wicked persons, separation from her husband, rambling around, sleeping for unreasonable hours and

These demerits of women are though still observed in our society but society never accepts these qualities in women. Being dominant because of patrilineal order men still object to these qualities in women and in Odisha it is very rarely found so. In brief, this verse holds good here.

"Na astistrinam....." – Chapter- 9/ verse-18. "While performing namkarm and jatkarm, Vedic mantras are not to be recited by women, because women are lacking in strength and knowledge of Vedic texts. Women are impure and represent falsehood".

This verse is followed in Odisha as of now. Women in society are not allowed to chant the Vedas in the public place. Though they discuss it in their social life but not used to read it in front of the public. Women in the process of *namakarma* and *jatkarma* rituals are not allowed to chant the Vedas. Widows in the research areas said that the males never allowed their females to touch the Vedas if they have the book.

"Devra...sapinda....." – Chapter- 9/ verse- 58. "On failure to produce offspring with her husband, she may obtain offspring by cohabitation with her brother-in-law [devar] or with some other relative [sapinda] on her in-law's side".

This verse explains that if her husband fails to beget a child then she can bear a child from the brother of her husband or from other relatives. It is highly observed that woman are forced to have relation with husband's brother or relative even the relative is an abusive or a rapist. The severity of this verse is observed due to the requirement of children in the house. But no repercussion is written if the other relatives are rapist or opportunist or someone with bad intention to harm woman in any kind.

"Vidwayam....." – Chapter-9/ verse-60. "He who is appointed to cohabit with a widow shall approach her at night, be anointed with clarified butter and silently beget one son, but by no means a second one".

In this verse one is allowed to have one child in the life by a widow but no real situation is prohibiting to protect the sanctity of widows. Widows are not pieces of wood they are actual human beings so how cohabitation can be done without husband. This is a paradoxical statement for all the women and widows. Contradictory statements were made in this verse but it is observed very rarely. In Odisha no one from our case studies reveal this kind of activity.

"Atikramay....." – Chapter-9/ verse-77. "Any women who disobey orders of her lethargic, alcoholic and diseased husband shall be deserted for three months and be deprived of her ornaments".

Medical practitioners say that men who are lethargic, alcoholic and diseased are unable to take decision for any situation so how one can in that condition be good to any one? To our surprise we observe that woman who had these types of husbands are generally follow the consequences of disaster, exploitation and miserable life. In Odisha we see that many widows are struggling to survive mainly because their husbands were having all such qualities when alive.

"Vandyashtamay....." – Chapter- 9/ verse-80. "A barren wife may be superseded in the 8th year; she whose children die may be superseded in the 10th year and she who bears only daughters may be superseded in the 11th year; but she who is

quarrelsome may be superseded without delay".

In this verse women were categorized to be exchanged/replaced upon the physical disability to have a child believed to be given by the God. It says that a man can marry another woman if the wife is barren or girl child is born or wife's children dies. This rule also exists in Odisha as there are many women who were unable to bear child then men get married to another woman. Wife never oppose to these rules as it's a part of her duty to bring child to her in-laws family, if she can't then husband should try it with other women no matter how much it hurts the wife. Still she accepts everything, tolerates and ultimately suffers.

"Trinsha....." – Chapter-9/ verse-93. "In case of any problem in performing religious rites, males between the age of 24 and 30 should marry a female between the age of 8 and 12".

During the mid-nineties, Odisha accepted all new reform movements but before that woman used to marry at the age of 9-14. At this early age girls marry often an older male at his 40s or 50s. As male members are normally ageless in the world view of Odisha, so it was a very common practice. This verse was visibly in practice and normally girls having no sense of starting a family life at the age of 9-14, they just follow what their parents force them to do and the consequence comes most often through widowhood.

In this regard some case studies are being presented below to give a clarity on how the situations in general are found for widows in Odisha.

Case study -1.-Baini Mohapatra: (Area- Lathuli, Berhampur)

Baini is aged about 80 years, got married at the age of 9 before she knew what is a marriage? She went to her in-laws house after the age of 13(after having her menstruation).She stayed with her husband and actively participated in her household work. Her husband was aged 34 when she was just 13. Due to huge gap in the age her husband was unable to procure their marriage, so they had no children. Her husband died at 44 years of age. Her husband was working in the Railways Dept. and earning good money. Despite the pension money from the Govt services, her husband had lots of landed property about 50 acres, a good concrete house with lots of rooms in it. She lives with her husband but had no

children and her husband is the only son of his parents. When her husband died, automatically all the property comes to her as there were no other legal heirs other than Baini. She had never given any official responsibility nor had maintained any education as she was 9 when she got married. She didn't know how to manage all the property. Eventually her far relatives were arrived to take some signatures and many times they just take a landed property from her. Later she adopted a son who took care of her. His name is Hrushiksha Mohapatra. When Hrushiksha got married and had children he wanted to leave Baini. Instead of maintaining her, what he did is, he took all her property and left her alone with 1/4th of the landed property and a single room. . She was all alone at the age of 65. She gets the pension amounting to Rs5500/-. She, once upon a time was called as "*Laxmibanta*" as she got married to the wealthiest and richest man in the entire village. Now she was claimed to be a "witch" who slowly eats all the pride and prestige of her family. She had no one around her except the household and the landed property. She is now in her 80s. Her own family members (adopted son) betrayed her and took all the property.

Case study- 2.-Joshna Dash: (Area- Lathuli, Berhampur)

Joshna Dash belongs to a very rich family; her parents have lots of assets in terms of landed property and very good house made up of concrete. Her parents fixed her marriage with a man who happens to be a driver in a company and had lots of landed property. As the boy was a Brahmin, Joshna's parents had no objection and they didn't search much about the boy's family background. Her marriage got fixed and she married to the boy with much dowry both in cash and kind. Joshna is the only girl child of her parents and she had three brothers. After her marriage, the parents distributed all the property among three sons equally. As Joshna was married, she had no claim over the property. She was very happy with her husband for five years. One daughter she had out of this wed lock. One day she came to know that she is not the only wife to her husband; there are two more wives to his husband. She was not educated enough to get into any service so she started to protest about other wives. Her husband continued to only beat her and tortured her for 8 years. One fine day her torture suddenly stopped as her husband died in an accident. Now she is a widow

with a girl child. She had no financial security or anything to maintain livelihood as other women took all the assets from her. She had no alternative other than to return to her brother's house. After a long struggle with her brother and his wife she now stays with her brother. She is now getting 300 rupees as widowhood *bhata* (payment) and all the facilities for BPL card holder. This is in brief, her life then and now, full of miseries and helplessness. Almost all widows in rural areas have more or less similar stories to decipher.

Analysis and Conclusion

Social relationship plays a vital role in woman's life both before and after marriage for socioeconomic securities. Husband and wife relationship is that precious in woman's life that it carries certain impact which continues till the death. The loss of someone very close is such a painful event that it might stay with the woman for a month or for a year but the role playing in widowhood makes it standing and consistent till the death of the widow. The love of someone that is so precious was gone so how one can survive that pain? This pain continues to life time mourning. When we add widowhood and its complex rule system through restrictions to the widow's daily life, then a woman was unable to grow inside. Their fighting spirits were so damaged that these women are completely stubborn for any change and even have no contribution for their families or society or largely to economy. During the research work we find that these subordination feelings come from the surrounding society, because men in our society taught their daughters to first sacrifice yourself and give light to your in-laws family. They never prepare their daughters to live a life with her own rights. There are very few instances where woman is widowed and then achieved something which become an example for the entire world. But in majority of cases women who attained widowhood become mere substances who had lost their spirits to love life and keep on fighting till death.

However, the paper is explaining the significance of *Manusmriti* in Odisha with specific reference to the rights and restrictions of women as well as widows. To get a comparative analysis on Odisha we had designed our research area in several villages of four districts. These villages were chosen randomly from the town area to visualise how widow as a

concept had developed in the society. Some villages had only tribal population and some other villages were caste dominated. We wanted to work on the understanding of the widows problems from all corners. So we started to work in the areas significantly rich in cultural practices (that is Puri and Berhampur) and having very poor cultural practicing areas (that is Keonjhar and Malkangiri). The research areas suggested that *Manusmriti* is still in practice and it is obeyed by all the Brahmin and Karana widows but it is rarely observed in other caste groups. Tribal widows are rarely found to have any knowledge of these restrictions. *Manusmriti* had given an identity to these women but had no particular space to accommodate them as individuals in world. It is a book of rules for all the odd situations in human life which Hindu religious people believe that if they follow them then they get 100 percent assurance of heaven in the afterlife. These religious believes are only giving an assurance to men for heaven even if they do anything where if women do a single mistake, they have no excuse and they will be punished in the hell. Though such practices are fading away gradually with education and modernization, in rural areas especially among the illiterate and poor people, the situation of women especially the widows are still worse. Though we have cited only two case studies here to justify our observation, there are lots more in this regard which will be discussed in detail in the thesis for PhD. examination.

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Educational Support System to Students with Autism Spectrum Disorder (ASD) in Odisha : Challenges and Redress

Bibhabari Bal

Abstract

Autism spectrum disorder (ASD) is a neurological disorder that typically appears before the age of three which adversely affect the development in social and communication skills. Over the past few decades, the case of Autistic Spectrum Disorder is increasing in India and abroad. The Persons with Disability (PwD) Act, 1995 provides fundamental right to education of these children with special needs (CSN) with the objectives to integrate them with the general community as equal partners and to prepare them for normal growth. But the effective implementation of the educational policies for the Autistic children has remained as a major challenge towards the social and educational inclusion of such disadvantaged group. It is more reflected in the economically backward states like Odisha where policies and programmes are hardly implemented to respond to the pragmatic need of the people with disability.

Key Words : *Autism Spectrum Disorder (ASD), The Persons with Disability (PwD), social and educational*

There is a statutory provision on right to education for all children in India. But the policies and programmes in favour of inclusive education is far away from the ground reality. Availability and accessibility to educational institutions for Persons with Disability (PWD) has still remained as a challenge to realise goals towards universal education. Particularly, social exclusion of the children suffering from Autism Spectrum Disorder (ASD) are more vulnerable to be deprived from their right to education. As a result, these children remain victim of social exclusion in all spheres of their life. Social ignorance, lack of political will and an apathetic Educational system of the country are largely responsible for perpetuating such inequality.

Autism is a neuro-developmental disorder that is found all over the world in all racial, ethnic and social groups affecting socialization and communication with the children suffering from Autism Spectrum Disorder (ASD). Suzanne Wright, co-founder of 'Autism Speaks', one of the leading organizations on autism says that approximately 70 million people are affected by autism around the world (Autism Speaks, 2016). There is prevalence of autism ranges from 2 to 6 cases per 1000 and it is

diagnosed in one in 150 children in the United States, affecting four times as many boys as girls (Centres for Disease Control and Prevention Report, 2006). Throughout the world, the prevalence of autism has increased tenfold in the last decade (Chakrabarti & Fombonne, 2005). For which autism in USA has been declared as a national public health crisis whose cause and cure still remain unknown (Centres for Disease Control and Prevention Report, 2006).

The rise in diagnoses of ASD has a significant impact on all of us. The national prevalence of autism spectrum disorders in India is 1 out of 250 children (Posserud et.al, 2010; Wong, 2007). Viewing India's current population, this means there are more than 2 lakh persons with autism in the country. WHO meeting report, 2013 speaks about the vulnerability of the persons with ASD, often subject to stigma and discrimination, including unjust deprivation of health and education services, and opportunities to engage and participate in their communities. Globally, access to services and support for people with developmental disorders is inadequate, and families of those affected often carry substantial emotional, economic and care burdens (WHO Report, 2013).

There is a growing worldwide concern on seeking greater awareness and understanding on the complexities of the condition in preparing the way towards social and educational inclusion of ASD persons. Most importantly, to lead a dignity of life, there must be accessibility to educational and employable opportunities. But a critical concern of teacher's responsibility for students learning in the inclusive classroom is their lack of knowledge and understanding of, as well as professional preparation for accommodating the characteristics and needs of students with Autism Spectrum (Bellini et al 2011).

In mainstream school education, students with ASD are facing lots of challenges and most of them are educationally excluded in India. The education of children with autism presents unique challenges (Iovannone et al., 2003). Humphrey (2008) found that in U.K., students with the autistic spectrum are twenty times more likely to be excluded from school than normal students. The situation of such students in higher education is worst with their invisible numbers. Taylor (2005) suggests that ASDs have only recently been recognised in higher education. There is dearth of accurate data articulating the number of ASD students entering and/or attending institutions of school and college education.

For the normal students without disabilities, it is expected to take transition to college and begin to experience and achieve basic tasks such as gaining a sense of self, developing values and personal preferences, setting goals, establishing peer connections, and more importantly, becoming independent of family. But, this process of learning is seriously affected in case of ASD students for a number of factors. The most prominent and universal is due to the having somewhat of an 'invisible disability' (Geller & Greenberg. 2010). ASDs are that kind of disability which is not as visible as physical disability like blindness or hearing impairment. There is lack of awareness even among the educated persons of India to understand and acknowledge the problems of ASD children. As Taylor (2005) points out, it may be difficult for both faculty and students to understand the struggles of an ASD student in the class-room teaching-learning process without proper knowledge on the problem. Moreover, there are lots of variances among ASD students that translate differently for each individual student and because of these variances, there may be

difficulties making appropriate adjustments to academic practices.

Objectives

The present study is propelled under following objectives;

- To acquire knowledge on the concept of autism and its major areas of difficulties through a detailed literature study.
- To explore the present educational policies of the Government and other support systems existing in Odisha with special reference to the autism students.
- To identify various problems and challenges encountered by the autism organisations and children with ASD in access to education.
- To suggest an effective need-based educational provision towards social and educational inclusion of students with ASD.

Methodology

The present study has aimed to make a qualitative study on the problems of ASD students in access to their education in Odisha. Method of observation and case-study have been adopted to make a detailed study of the institutions serving for the cause of autism. Survey of the entire state reveals the fact that there are only two institutions, MAN Trust and CATCH those are specially dealing with the education and training of the autistic children. MAN Trust, Autism Therapy Centre of Bhubaneswar has helped the researcher to make a pilot study on the problem before adopting a proper methodology. To meet the objectives of the research, both primary and secondary source of data collection have been explored for a detailed inquiry of the problem. A wide range of literature study has been made through books, journals and internet as secondary source of data collection. For primary source of data collection, case study of these two major institutions of Odisha who are the only institutions specially dealing with the education and training of the children with autism (MAN Trust and CATCH) have been visited and interviewed to understand the existing support systems in Odisha for the education and training of the students with autism. In addition to that twelve case studies of autistic students from different socio-educational backgrounds have been conducted to make a detailed qualitative analysis of

their difficulties and challenges in the process of attaining education in the mainstream process.

Research design is explorative in nature. A semi-structured interview schedule was prepared for teachers and parents of the autistic children to explore life experiences, opportunities and challenges related to their basic education and social inclusion.

Defining Autistic Spectrum Disorder

Autism Spectrum Disorder (ASD) is a set of complex neuro-developmental disorders that affect social communication and behaviour of the person with a range from mild to severe. A person with autism often fails to understand the emotions, social reciprocity, language and behavioural pattern of the society. People from all socio-cultural backgrounds can have autism, although it appears to affect more men than women. It is a lifelong condition and children with autism grow up to become adults with autism. Ministry of Law, Justice and Company Affairs (legislative department), Govt. of India established an Act, called the National Trust for the Welfare of Persons with Autism, Cerebral Palsy Mental Retardation and Multiple Disabilities Act, 1999. The Act defines,

"Autism" means a condition of uneven skill development primarily affecting the communication and social abilities of a person, marked by repetitive and ritualistic behaviour. (National Trust Act, 1999)

National Institute of Mental Health (NIMH) has laid down the following characteristics of Autism spectrum disorder (ASD)

- Persistent deficits in social communication and social interaction across multiple contexts;
- Restricted, repetitive patterns of behaviour, interests, or activities;
- Symptoms must be present in the early developmental period (typically recognised in the first two years of life); and,
- Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning. (NIMH, 2011)

ASD is a spectrum condition, which means that, while all children with autism share certain common difficulties, but their differential conditions affect

them in different ways. Some children with autism are able to live relatively independent lives but others may have accompanying learning disabilities and need a lifetime of specialist support. Children with autism may also experience over- or under-sensitivity to sounds, touch, tastes, smells, light or colours. World seems as a mass of people, places and events in the view of autistic person which they struggle to make sense of, and which can cause them considerable anxiety. Particularly, understanding and relating to other people, and taking part in everyday family and social life is harder for them. After careful training they may be able to know how to communicate and interact with other people. Some people with autism even wonder why they are 'different'. Common characteristics of the children with autism are; love of routines, sensory sensitivity, special interests and learning disabilities. There are three main areas of difficulty which children with autism have. These are:

- difficulty in communication
- difficulty in interaction
- difficulty in imagination

Lots of children with ASD are thought to be visual learners, so presenting information in a visual way can support their communication, language development and ability to process information. All children with autism can benefit from a timely diagnosis and access to appropriate services and support.

Educational Policies of the Government

Education is the most effective vehicle of social and economic empowerment of persons with disability (PwD) in this 21st Century. According to the Census, 2001, 51 per cent of PwD were illiterate and only 1.2 per cent of them have the access to higher education (NCPEDP, 2011). It is assumed that the educational status of autistic persons is very low and negligible because of their lack of access to mainstream education. With the purpose of mainstreaming children with various disabilities in the general education system Govt. of India has framed various policies towards inclusive education.

Educational provisions and opportunities for the autistic students come under the category of PwD. "persons with disability" means a person suffering from any of the conditions relating to autism,

cerebral palsy, mental retardation or a combination of any two or more of such conditions and includes a person suffering from severe multiple disability (National Trust Act, 1999).

The RTE (Amendment) Act, 2012: It provides provision for the children with disabilities, including children with cerebral palsy, mental retardation, autism and multiple disabilities shall have the right to pursue free and compulsory education in accordance with Chapter - V of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 (The RTE Act, 2012).

National Trust Act – 1999: The Indian Parliament passed an Act entitled “National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disability”. This is another landmark legislation to promote programmes, which foster inclusion and independence by creating barrier free environment, developing functional skills of the disabled and promoting self-help groups (National Trust Act, 1999).

National Action Plan for Educational Inclusion of Children and Youth with Disabilities including autism has following major objectives:

- Increase in the number of young persons with disability accessing primary education and Smooth transition of those wishing and able to access secondary and higher education. Consistency in providing for disabled friendly examination facilities across states and boards.
- Resource support in the form of special educators and rehabilitation professionals across disabilities available in adequate numbers to assist mainstream teachers at all levels. Provide for home based learning for persons with severe, multiple and intellectual disability.
- Emphasize job-training and job-oriented vocational training.
- Promote an understanding of the paradigm shift from charity to development through a massive awareness, motivation and sensitization campaign.

(Minister of HRD Statement, 2005)

The schemes like Teachers Preparation in Special Education (TEPSE) and Higher Education for Persons with Special Needs (HEPSN), 1999- 2000 have been implemented with an objective to develop courses for special teachers and counsellors and also to provide facilities in various forms for the persons with disability. But these schemes have not been fully implemented in all the educational institutions (NCPEDP, 2005).

Existing Support System for children with ASD in Odisha

Odisha, the State of India is situated along the 482 km stretch of coastal line at eastern India. It is identified for its ancient glory, historic monuments, exquisite temples and its architectural beauty. The present population of Odisha is 41,974,218 (2011 census), out of this 1,244,402 persons are living with disability (Ministry of Social Justice and Empowerment, 2015). Literacy rate of persons with PwD at a dismal low with only 57.08 per cent out of which only 9.01 per cent are matriculate (Govt. of Odisha, 2012). It shows a very poor educational status of disabled children. A study conducted among educated professionals of Odisha reveals that 92.5 per cent people are aware of disability, 50 per cent knew about learning disability and only 32 per cent knew about the term autism (ibid.). This shows poor information on the concept of autism and that seems to be the major obstacle towards the social and educational inclusion of the autistic children in Odisha and in other states of the country.

Provisions for Special Children:

Department of Women and Child Development is the concerned authority for the welfare of Person with Disability in Odisha.

There is a scheme for the establishment of Special Schools for the children coming under PwD category by the support of Grant-in-aid provision of the state Government. Section 3 (1) of the Right to Education Act, 2009 makes it mandatory for every child to be provided with free and compulsory elementary education by the State. The children with different disabilities in moderate, severe and profound categories not capable of attending the

general stream of education require specialized education facilities. In recognition of the special needs of these children, the Government has made provisions to promote special education in the state through establishment of special schools by the voluntary organisations (The Odisha Gazette, 2013).

The Scheme is running in the state since 1985. At present, there are 51 Special Schools which are being run by non-Government or voluntary organizations (Govt. of Odisha, 2012). Out of which, only two organizations, MAN Trust (Autism Therapy Centre), Centre for Autism Therapy, Counselling and Help (CATCH) are specially dealing with the training and education of autism children in Odisha. There is not a single Government organisation for this purpose. The registered non-Government organizations recognized by the state Government are supposed to receive grant-in-aid for running of these schools. These institutions are required to provide free education to children with disabilities through special schools, facilitated with professionally trained teachers.

MAN Trust (Autism Therapy Centre):

The centre was established in 2010 by a mother of an autistic child and it runs in the building provided by Silicon Institute of Technology, Bhubaneswar.

There are 50 enrolled students within the age group of 5 to 18 years with the support of 14 trained teachers. It is purely a non-profitable organisation completely managed by its own fund. But it has never received any financial assistance neither from the Govt. nor from any other voluntary organisation. Though, it receives necessary information and guidance from the established autistic centers of Delhi, Bangalore and Chennai. The main activity of the organisation includes various therapies for autistic students to combat with the behavioural and learning disability and to help them in growing as a self-reliant person. It also conducts various awareness programmes to sensitise public and students through seminars, poster display, rally for the cause of autism, competitions on quiz, debate, sports etc.

Centre for Autism Therapy, Counselling and Help (CATCH):

This is the first organisation for the education and training of the autistic children in Odisha. It was also established by a mother of an autistic child in 2004 like MAN Trust organisation, and runs under a rented house at Kalinga Nagar, Bhubaneswar. The organisation has 20 enrolled students within the age group of 4 to 22 years with the help and support of 3 teachers and 3 parents voluntarily playing their role to assist teachers. They have been provided training

Table 1: Case Findings on Autistic Therapy Centres in Odisha

<i>Features</i>	<i>MAN Trust</i>	<i>CATCH</i>
Establishment year	2010 (established by the mother of an autistic child)	2004 (established by the mother of an autistic child)
Status of Accommodation	Runs in the building provided by Silicon Institute of Technology, Bhubaneswar.	runs under a rented house at Kalinga Nagar, Bhubaneswar
No. of student's enrolment	50	20
Age group	5 to 18 years	4 to 22 years
No. Of teaching staff	14 teachers	3 teachers with 3 voluntary parent-teachers
Funding resource	Own fund, partly contributed by parents of the students (no Govt. assistance)	Own fund, partly contributed by parents of the students (no Govt. assistance)
Source of training and guidance	autistic centres of Delhi, Bangalore and Chennai	autistic centres of Delhi and Bangalore
Major activities	Structured teaching method with various therapies, and various awareness programmes to sensitise public and students.	Structured teaching method with various therapies and various awareness programmes.
No. Of ASD students joined mainstream schools after getting trained	05 (coping up with the normal school system has not been easy. There is only one example of receiving higher education)	01 (passed matriculation through an open school and now trying to get admission in +2 education)

by the organisation. It is also a purely non-profitable organisation completely managed by its own fund. It has its own structured teaching approach to train and educate autistic children for the development of their communication skill, social skill and to check repetitive behaviour. They get educational and training assistance by the invited resource persons from the established autistic centres of Delhi and Bangalore.

Both the organisations are making hard effort at their own level with their limited infrastructural and financial resources to train autistic children. Unfortunately, they are not getting any support from the state or central Governments with regard to Grant-in aid, training or any other kind of assistance. Their effort in this context is hardly recognised by state Govt. or any other external body.

Problems and Challenges

Challenges of the Autistic therapy centers are almost same. Both the organisations have financial constraints, space constraints as they don't possess their own building. One of the biggest challenges is the lack of qualified trained teachers for special education. The main reason is the absence of resource centre for the teacher's training in Odisha on special education in autism. Lack of public awareness both in the medico and non-medico spheres often puts them in trouble to handle with the problems of autism.

Out of twelve case studies, only one ASD student (former student of MAN Trust) has completed his school education and others have faced difficulty to make a transition to high school study because of multiple challenges. Interpretation and analysis of the data derived from the sample-study on ASD students discovered three major challenges in the process of their education from home to therapy centre and from therapy centres to main stream schools. These are basically related to their attitudinal and behavioural challenges, institutional challenges and socio-cultural challenges.

Attitudinal and Behavioural Challenges:

Attitudinal barriers are found to be the major obstacle when it comes to the inclusion of ASD students in mainstream schools. They are misunderstood as disobedient, stubborn, lazy, unintelligent and uncivilized. In the process of social communication, children with autism have

difficulties with both verbal and non-verbal language. They don't understand jokes, sarcasms and commonly applied phrases or idioms. They can only understand the literal meaning of what other people say and sometimes it is easier to understand with the help of visual symbols.

Case Analysis 1.0

Mausumi Dash, a grown-up girl of 19 years old is deprived of getting normal education because of her behavioural problem. She does not make the sense of gender difference between a boy and a girl and that always puts her in trouble in communicating with others particularly male teachers of her therapy centre. Her direct and open behaviour showing affection to other persons is often being misunderstood by her own family members. When she was in Man Trust, autism therapy centre, her simple innocent way of loving expression once created an unpleasant situation and for that she was not sent to the school and kept confined at home.

Institutional challenges:

Students with ASD meet lots of challenges at their educational institutions (particularly in mainstream schools) because they have to cope up with an external environment apart from their home, which is not designed for them and they are also expected to behave and perform normal in the process. In view of the parents and teachers of the therapy centres, there is no specific provision for autistic students in any schools of Odisha. That is the reason why, while transiting to main stream school from therapy centres, either they are forced to drop the school in middle of the session or face lots of difficulties in pursuing their school education.

Case Analysis 2.0

Gautam Panda, an amazing non-verbal autistic young boy of 18 years old has so many dreams and thoughts that he always wants to capture it through his writings. He has been awarded number of times from various organizations for his thoughtful writings and extraordinary performances in other fields like sports. Once, his family members tried to seek permission from the department of mass education to allow him to use computer in writing answer paper while appearing his 8th standard school Annual Examination. Despite of his early impressive academic record, he was denied by the Govt. officials to avail special privilege. Then after

lots of persuasion and citation of similar cases of other states, finally he was allowed. This case simply shows that despite of favorable governmental policies, bureaucratic process in giving educational access to the ASD students lacks empathy. It is for this reason, Gautam's parent couldn't keep faith on the state run educational system and as a result he remained deprived of making higher study despite of his high level of intelligence.

Socio-Cultural Challenges:

There are some common social perceptions on autism. It is often viewed as a curse or result of some past sin. It is for that reason; a family may hide the problem of disability from the world in order to avoid societal criticism. Such families fail to provide a positive environment for the social and educational growth of these special children. People suffering from autism may be slow learners but sometimes, they do possess brilliant minds. People often do mistake to this development disability as a mental disorder. The main challenge in the process is the lack of social awareness and acute ignorance in the people. It often leads to social isolation further aggravating the problem of ASD children. It seems the ignorant society stands more as an obstacle on the way of autistic children than autism itself.

Case Analysis 3.0

Priyanshu Pattnaik, an autistic young boy of 16 years old is very aggressive in his behaviour. One day, he came out of his home with his bicycle without the notice of his mother and was caught on the way by a traffic police constable for his unusual behaviour. The ignorant traffic police man could not tolerate and thrashed him by his wooden cane for the violation of the traffic rule. His screaming and shouting was unheard to the moral watchdogs of our society. It had a traumatic impact on Priyanshu. He was so deeply affected by that incident that he couldn't even dare to come out of home and attend school for a long time. It is a clear case of ignorance and insensitivity in the part of the people in public service.

Case Analysis 2.1

Gautam, the amazing autistic boy appeals to the society through a mail to his mother "yes, really I want to talk on this devastating, stubborn, strongest

ever boundary of my life now. It is like spider's web around me both physically and mentally.....unending anxiety, fear, emptiness are its main features. I am totally undone, rarely come out of it, mostly under its tight clutch. My situation is still better than my parent, specially my poor 'mama'. She is like a pendulum between me, my differences and you all named society. My family with whom I share my feelings, reactions face the same difficulties from this bigger group you call it society. An only amicable solution to me is to accept me....."

There are many instances cited by the parents of autistic children which highlights on societal ignorance and the lack of public awareness to accept them as they are. For which they have faced many difficulties in public places while boarding at airport, doing shopping at mall etc. Instead of facilitating provisions to them for a better life, the current system aggravates their issues.

Suggestions

Till now, there is no cure to autism. However, there are numbers of management strategies that can help people with autism to have better access to normal life with an empathetic social and educational support system. Suggestions and recommendations given by the parents, teachers and founders of therapy centers have two important ways; one is to identify those students with ASD from the very early age and make necessary systematic arrangements to provide best possible opportunities for their social and educational inclusion. Some important suggestions have been given below;

- In every school, there should a separate autistic wing for special care of ASD students and necessary infrastructural arrangements for special education.
- There should be establishment of training centres for teachers of special education in autism.
- Intellectual discourse must be encouraged to undertake researches in this direction.
- Mass media should come forward to play its effective role towards social and educational inclusion of autistic children.
- There should be more flexibility and relaxation

in the administrative system in giving financial assistance to those concerned organisations for the cause of autism.

- A joint collaborative action must be planned between government, voluntary organisations, parents of autistic children, and the public institutions for the understanding and acceptance of autism.
- There should be sincere steps at the Governmental and non-Governmental levels to make awareness and sensitization among the common people on the issues of autism.
- Written instructions on autism should be displayed at important public places such as at the shopping centres, bus and railway stations, airport, hospitals etc.
- There should be proper mechanisms for effective monitoring and evaluation of Governmental policies and programmes in every educational institution to reduce the gap between theory and practice.

Conclusion

Educational policies of the Government of India are very wide and extensive with regard to the educational inclusion of children with PwD including autistic children. The department of Child and Women Development in Odisha is relatively progressive in policy terms in the context of the development of ASD students, though it has been difficult to transform policy into action as observed by the present study. Rather the work of autism therapy centres raises a certain degree of hope among the parents of autistic children in Odisha for their social and educational inclusion despite of severe negligence and apathy from the Government and society at large. Proper identification of ASD problems and up gradation of the existing educational institutions with necessary arrangements to facilitate the process of learning among the autistic children in every stage of mainstream education is relevant in the present context. In response to various challenges faced by the ASD students, there should be sincere effort from all in creating more empathetic and conducive environment for the free educational growth of ASD students. Most importantly, a steady effort to sensitize common people on the issues of autism is

equally significant.

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Anthropological Contribution to the Study of Disaster: An Analysis

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Abstract

This paper addresses the contributions of anthropologist towards the field of disaster studies and emergency management in different parts of the world either in overtly or covertly. In this paper attention has been concentrated on the holistic part of humanity in relation to socio-cultural, political, and economic contexts to answer the calls from within the field of Anthropological techniques used for disaster studies. This paper also examines the contemporary contributions and investigations, following the life-cycle of a disaster event, from pre-disaster vulnerability, conceptions of risk, individual and social responses and coping strategies, and relief management. It concludes by providing recommendations for future research.

Key Words : Disaster management, Coping strategies and Relief.

Introduction:

Anthropologists are globally known for their micro attention towards the topic on natural or man-made disaster. It is important to mention here that disasters have been managed holistically by Anthropologist not only focused on the broader context of historical and pre-historical data with interrelationships between cultural, social, political, economic, and environmental domains but also tried to analysis how risks and disasters both influence and are products of human systems. Focus has been concentrated in various studies by representing simply data on disaster in isolated, spontaneous, or unpredictable events. So Anthropologist tried to concentrate how cultural systems (the beliefs, behaviors, and institutions characteristic of a particular society or group) figure at the center of that society's disaster vulnerability, preparedness, mobilization, and prevention. Understanding these cultural systems, Anthologist tried to understanding both the contributing causes to disasters as well as the collective responses to them. An Anthropological technique of "holistic approach" is the best method to examines the complex interrelationships between humans, culture, and their environment, from the human actions that may cause or influence the severity of disaster, to the position of social vulnerability that defines disaster impact, to the range of socio-cultural adaptations and responses,

including the impact of aid and the infusion of donor money. The comparative, relativistic approach of the discipline has often given it a critical stance, privileging local knowledge and local ways of management, while problematising the dominant models of relief. Given calls within disaster studies for an "expanded horizon" more inclusive than the current domestic, natural hazards focus, anthropology seems ideally situated to make a contribution to the field. Its own broad perspective includes what Dynes (2004) calls "slow-onset" disasters, public health epidemics, and complex emergencies. Because anthropologists often work in the developing world, where vulnerability to disasters is the highest, they have been positioned to comment on issues like risk, change, management, and assistance. Some of the most complete reviews of the field have been done by Anthony Oliver-Smith (see, for instance, his 1996 "Anthropological Research on Hazards and Disasters," and 1999 *The Angry Earth: Disaster in Anthropological Perspective* (edited with Susanna Hoffman), which provide much of the basis and inspiration for this current review); many of the conceptual categories that follow are his. The chapter is organized to follow anthropology's contributions to the complete life cycle of disaster, from issues of vulnerable and perceived risk, to individual and social responses and coping strategies, to relief and recovery efforts.

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Pre-Disaster Risk and Vulnerability

Culture influences that some people within the social system are more vulnerable to disasters than others. Ethnic minorities, disempowered castes or classes, religious groups, or occupations may live or work in physical areas that are relatively disaster-prone (Torry 1979, Zaman 1989, Haque and Zaman 1993, Bankoff 2003). For example, the mortality from the 1976 earthquake in Guatemala so disproportionately impacted the poor (unable to afford standard construction, and forced to live in landslide-susceptible ravines and gorges) that the disaster was called a “classquake” (Blaikie et al. 1994). In addition, cultural ideas about gender occupations and gender roles may predispose women (and often, by association, children) to be disproportionately represented among groups whom disasters strike, or who are most vulnerable to its effects (Agarwal 1992, Shaw 1992, Fothergill 1996, Bari 1998). Studies of vulnerability and risk have thus focused largely on environmental and technological susceptibility, such as at living near waste disposal sites (Johnston 1994, Pellow 2002), water contamination (Fitchen 1988), and workplace contact with toxic chemicals or dust (Sharp 1968, Michaels 1988, Petterson 1988), and industrial accidents (Wallace 1987). Pre-disaster inequalities within social relationships have also been shown to exacerbate tensions and discrimination during times of crisis or relief (Jackson 2003). Torry (1986), for instance, showed how pre-disaster religiously sanctioned inequality existing in India structured the provision of relief during famine in such ways that reinforced the cultural model of customary discrimination. He notes that social adjustments during crisis “are not radical, abnormal breaks with customary behavior; rather they extend ordinary conventions” (1986: 126). Working with Bangladeshi communities resettled from erosion prone riverine areas, Haque and Zaman (1993) suggest that relief efforts that ignore broader cultural institutions like religious and sociopolitical organization, may do so at their own peril, in that they ignore factors that influence or limit how communities are able to organize and respond to their own situation.

In parallel with work in other disciplines, anthropology has sought ways to call attention to (and alleviate) structural conditions of pre-disaster vulnerability that predispose some communities to

experience disaster or that increase the severity of disaster impact. Such conditions include gender inequality, global inequities, endemic poverty, racism, a history of colonial exploitation, imbalances of trade, and underdevelopment. Poor or ethnic minority groups may have little choice but to live in sub-standard housing on or near unstable land prone to flooding, drought, disease, or environmental pollution (Bodley 1982, Johnston 2001). The developing world experiences three times the disaster-induced death rates of the developed world (UNDRO 1984). Paul Farmer, a medical anthropologist, takes stock of the profound and spreading social disaster within the poorest countries of the world that HIV/ AIDS and tuberculosis infection represent (1999, 2004). With millions dead and tens of millions of children left orphaned in Africa alone, Farmer places the blame for the epidemic squarely on structural forces: the poverty and racism that heighten vulnerability by preventing the poor from receiving education and health care access, the multinational greed that prevents life-prolonging treatment drugs from reaching the poor, and neo-liberal economic policies that force governments to slash safety nets and reduce spending on crucial social services (see also Schoepf et al. 2000).

Research from the African Sahel has shown that economic pressures associated with colonialism and global trade induced unsustainable practices that increased the local vulnerability to desertification, famine, and starvation (Turton 1977, Fagan 1999). Oliver-Smith notes the “socially created pattern of vulnerability” that Spanish-induced changes in building materials, design, and settlement patterns induced in Andean cultures that contributed to higher mortality during a 1970 earthquake in Peru (1994). The pressure for economic development, modernization, and growth through means such as mining, deforestation, urbanization, and hydroelectric dams, can lead to dramatic environmental degradation, loss of food security, and increasing disease vectors, thus elevating vulnerability to natural and infectious hazards (Scudder and Colson 1982, Simonelli 1987, Cernea 1990, Shipton 1990, Hunter 1992, Lerer and Scudder 1999).

There is also research on how various factors involved in pre-disaster situations assess and define risk and vulnerability. Anthropologists have

emphasized local models of risk construction, and stressed the importance of understanding the sociocultural context of judgments and indigenous linguistic categories and behaviors about what is dangerous and what is not. They note that public perceptions about risk and acceptability are shared constructs; therefore, understanding how people think about and choose between risks must be based on the study of culturally-informed values as well as their social context of poverty or power (Wolfe 1988, Cernea 2000). Douglas and Wildavsky (1982) note, for instance, that scientific ratios that assess levels of risk are incomplete measures of the human approach to danger, since they explicitly try to exclude culturally constructed ideas about living “the good life.” Risky habits or dangerous behaviors are conformations to lifestyles, and thus become evaluated within other socially and culturally evaluated phenomenon. Food, money, or lifestyle may outweigh perceived vulnerability. People live in Los Angeles, for example, not because they like breathing smog, but to take advantage of job opportunities, or because they value natural beauty, a warm climate, etc. Altering risk selection and risk perception, then, depends on changing the social order. From the point of view of sociology, Mileti (1999) similarly argues that any shift in vulnerability-preparedness must include a shift in cultural premises that privilege technological solutions, consumerism, and short-term, non-sustainable development. He notes that in the U.S., centralized attempts to guard against natural disasters, especially those that employ technological means to control nature, may ultimately create a false sense of security that can exacerbate the risk of even more damage occurring. For instance, dams and levees meant to protect communities from flooding along the Mississippi River basin actually encouraged denser settlement patterns and industrial development in flood-prone areas, which inflicted much greater losses during a large flood that caused the levees to fail. Paine (2002), in writing about Israeli citizen responses to violence from the Palestinian uprising, notes that consciousness of risk can actually be socially negated. Particularly for Zionist Israelis, the acceptance of religious identity and collective mission supersedes any rational calculation of vulnerability. Finally, Stephens (2002) writes how political culture can shape risk assessment. In Europe in the years following the

Chernobyl disaster, risk assessment has been effectively delegated away from individual or personal level to the realm of scientific “authoritative experts.” Stephens' work shows the pressure among these experts to both inform an anxious public about the levels of risk surrounding nuclear energy, nuclear accidents, and radiation danger, and simultaneously assuage the public that everything is “normal” and “under control.”

Responses to Disaster by Anthropologist:

Individual and Organizational Responses

As Oliver-Smith notes, hazards and disasters challenge the structure and organization of society. Much anthropology, therefore, examines the behaviors of individual actors and groups within the events surrounding a disaster. The anthropology of disaster response has focused on changes occurring within cultural institutions like religion, ritual, economic organization, and politics, especially concerning the relative degrees of local cooperation or conflict, the ability of local institutions to mitigate the impact of a disaster, and the differential capabilities of response due to ethnicity, gender, age, and socioeconomic status (Das 1997). Pannell (1999), for instance, notes that inland resettlement of a coastal community because of volcanic activity involved dramatic and destabilizing changes in subsistence, organization, and identity. Research has also focused on how vulnerable populations variously respond to both the crisis and the provision of aid, in particular the aged (Guillette 1993), women (Vaughan 1987, Shaw 1992, Alexander 1995, Bari 1998), and children (Gordon et al. 1996, Tobin and Whiteford 2001, Shepler 2003). Each of these populations may have different coping mechanisms, different vulnerabilities, and different capabilities (Anderson 1994, Nordstrom 1998, Skelton 1999). Research has also focused on the interactions and interrelationships between donors, providers and recipients of aid (Oliver-Smith 1979).

With the rise in occurrence and severity of technological disasters such as oil spills and chemical explosions have come anthropological studies of community and corporate responses. Research into the Exxon-Valdez Alaska oil spill uncovered how communities recover from the stress and impact of the spill. Some of these have

shown that disasters can stimulate a range of social responses, from initial anger and denial to social integration and cohesiveness, as new groups form to initiate bargaining for responsibility and obligation (Button 1992). Loughlin's work on responses to the Bhopal, India, chemical explosion shows how corporate and community definitions as to disaster, culpability, and accountability can be at odds, and that disasters may stimulate new forms of local activism and social consciousness (Loughlin 1996). Such research provides grounding for the concept of "environmental justice" (Johnson 1994), which attempts to define rights for those communities whose subsistence is primarily dependent on an ecological relationship with their surrounding natural resources.

Though disaster-literature typically focuses on the population-level, disaster-related trauma may have individual effects that become expressed in culturally informed ways, in response to fire (Maida et al. 1989), earthquake (Bode 1989, Oliver-Smith 1992), technological disaster (Palinkas et al. 1993), or complex emergencies (Jenkins 1996, Caruth 1996, Young 1997, Henry 2000a). Anthropologists have come to use the analytical term "embodiment" to focus on the complex meanings of disaster-related trauma that become manifest in individuals, as they lived experiences of disaster, and the creative ways that survivors use to comprehend the trauma done to their lives, and attempt to move on (Kleinman et al. 1997, Green 1999, Anderson 2004, Scheper-Hughes and Bourgois 2004). Henry, for instance, notes how *haypatensi* (from the English medical condition "hypertension") evolved in the war-torn areas of Sierra Leone as a new kind of local sickness experienced by refugees and internally displaced persons in response to their experiences of violence, displacement, and the provision of relief aid (Henry 2000b). Cathy Caruth (1996) notes that when traumatic experience is remembered, a "historical narrative" is created in which the events become restructured and resituated in ways that help the survivors understand and make sense of what happened, and move forward (see also Malkki 1990). The analyses of trauma narratives have been recognized as valuable in helping illuminate how people come to make sense of the violence done within disaster (Poniatowska 1995, Jenkins 1996, Coker 2004). As Coker points out, the references within that narrative need not be straightforward, but

become locally understood and expressed indirectly in culturally defined idioms (somatization, a new kind of sickness, Divine punishment, supernatural wrath, spirit possession, etc.).

Anthropologists have often been critical of the dominant Western classification-diagnoses "PTSD," or Post-Traumatic-Stress-Disorder, especially its claim to represent universal "human" responses to extremely traumatic situations. They trace the diagnosis through the historical construction of "trauma," especially in its transformations by 19th and 20th century scientists, and the study of war-traumatized WWII soldiers and Vietnam veterans (Hermann 1992, Young 1997, Petty and Bracken 1998). Bracken notes that PTSD was created through Western categories, and that the therapy it entails is shaped by Western ideas of cognitivism, in which trauma is located as an event inside a person's head, rather than representing a social phenomenon, where recovery might be bound up with the recovery of the wider community. Instead, in line with the Western model, children and adults are universally encouraged to talk about traumatic experiences, or draw, paint, or use storytelling, in effect provoking them to relive the trauma. Not surprisingly, anthropologists have been critical of this kind of approach; it conflicts with the holistic and relativistic approaches of anthropology described above—"Talking cures" or counseling that ignores other family or community members may be cross-culturally inappropriate, especially in other parts of the world, where conceptions of individuality and person may be much more connected to the social context than in the Western world (Young 1995, Brett 1996). Parker (1992) further notes that any implication that traumatic disaster is "temporary" ignores the fact that many people live with chronic insecurity, economic frailty, and extended states of trauma.

Responsive Belief Systems and Coping Strategies

Since the beginning of the discipline, anthropologists have been interested in how people draw upon and alter their belief systems in efforts to come to terms with events of catastrophic change, violence, loss, resettlement, and even humanitarian relief (Lindstrom 1993, Maida 1996). These events can involve changes in social institutions like religious beliefs or customs (Stewart and Harding 1999), social organization (Colson 1973, Oliver-

Smith 1977), attitudes and values (Bode 1977, Oliver-Smith 1992), even marriage institutions (Loizos 1977).

Anthropologists have shown some of the adaptive coping strategies that even relatively isolated world populations have traditionally used to respond and cope with disasters from the environment, such as flood, drought, conflict, earthquake, volcanic explosion, and disease (Turton 1977, Torry 1978a, Zaman 1989, Tobin and Whiteford 2002). Archaeology, for instance, has used the material record to provide long-term depth for understanding the human-environment relationship in both historical and pre-historical time. This has involved using flora, fauna, and material remains to examine the relationship between contextual variables like the magnitude or speed of a disaster with social variables such as population density, wealth distribution, and political complexity, in order to assess how disasters have impacted human response and social adaptation over time (McGuire et al. 2000, Bawden and Reycraft 2001). Some of the work here notes how disasters can instigate cultural evolution (Minnis 1985, Mosely and Richardson 1992); others note the disastrous consequences of unsustainable environmental practices that human behavior can cause (Fagan 1999, Redman 1999, Dods 2002). In contemporary time, Elizabeth Colson has pointed out the creative coping mechanisms that can occur within social systems as a result of the upheaval of forced relocation, such as flexible forms of social organization, familial obligations, occupations, and belief systems (1973, 2003). Monica Wilson notes how the cultural norms of hospitality in southern Africa enabled shipwrecked explorers and traders to be welcomed and integrated into the social order of local communities (1979). Davis echoes this, noting that the suffering involved in traumatic experience is social—"the experience of war, famine, and plague is continuous with ordinary social experience; people place it in social memory and incorporate it with their accumulated culture (1992: 152). For Davis, suffering results not so much from a "breakdown" in the proper functioning of the social order, but rather is itself a painful part of the social organization. This includes the culturally diverse ways that people mourn, and how they draw upon culturally and religiously defined symbols to find strength (Bode 1989, Hoffman 1995).

In some areas of the world, people have long had to deal with social disruption, such as areas in the African Sahel, where drought, famine, and political insecurity have become somewhat common, if not always anticipated, events. In Sudan, for example, Van Arsdale (1989) coins the term "adaptive flux" to refer to the indigenous self-help tactics and long-term coping strategies that have evolved to enable people to survive under fluctuating, harsh, and erratic conditions in what is a socio-economically and geographically peripheral area. People may activate migration networks that send some family members to urban areas, farmers may enact systems of crop rotations or sharing of draft animals to increase the chance of a successful harvest, or they may rely on grass-roots political councils to mobilize food resources or security during scarcity or political instability. In Ethiopia, for example, Hailu et al. (1994) note that these kind of local council decisions were able to mobilize 6,000 peasants to build a dry-weather road to eastern Sudan in a short time. This later enabled relief-assistance to reach the area during famine.

Adaptive strategies can, however, become strained under the larger-scale of vulnerability that has frequently accompanied the transformations inflicted on indigenous societies since Western contact, colonialism, industrialization, and incorporation into the world market. Already mentioned was how British colonialism and economic pressures in the East African Sahel eroded (and in some cases, outlawed) preexisting indigenous methods of drought survival, and increased the local vulnerability to desertification, famine, and starvation (Turton 1977, Fagan 1999).

Responses within Political Organization

Anthropologists have noted how disasters can alter political organizations and power relations between individuals, the state, and international actors. Disasters may provide a kind of structuring idiom that allows people to more clearly apprehend their own political situation and their own position of power (or marginality) relative to that of the state (Chairetakakis 1991, Button 1992). Chairetakakis notes that where states or political parties are able to exploit the situation by being seen as a major player in relief, relief efforts can bolster the dominant political interests of those already in power (see also Blaikie et al. 1994). Davis, writing about the

consequences of earthquake and tsunami in Alaska, notes that disaster assistance functioned to increase the integration of native groups into the state (Davis 1986). Alternately, disaster and relief can stimulate the development of subaltern means, identities, or interests. Robinson et al. (1986), for instance, writing about local responses following the 1985 Mexico City Earthquake, note how neighborhood and student organizations recovering from the quake felt empowered to mobilize and demand more accountability from the political party in power.

Responses within Economic Systems

Anthropologists have always been interested in the material and economic exchange of peoples, especially in terms of production, distribution, consumption, the allocation of scarce resources, and the cultural rules for the distribution of commodities. Because disasters and disaster relief can so dramatically impact material subsistence and exchange, anthropologists have looked at the changes that disasters can bring to economic systems and related mechanisms like employment, sharing, egalitarianism, and morality (Dirks 1980). Torry, for example, studying Hindu responses to famine, notes that social inequality situated within caste or other sanctioned structures can produce marked inequalities in access to resources, and the unequal distribution of relief items (Torry 1986). Oliver-Smith, writing about immediate responses to avalanche and earthquake in Peru, notes that previously existing stratifications like class and ethnicity can temporarily disappear in a short-lived wave of altruism. Once national and international aid appears, however, old divisions can reemerge, and conflicts over access to resources begin again (1979, 1992).

Response with reference to Providing Relief:

As mentioned above, anthropology has sought different ways to alleviate the structural conditions of pre-disaster vulnerability that pre-dispose individuals, groups, or societies to experience disaster or that increase the severity of disaster's impact. Targeting these structural conditions, then, has often involved a search for ways to incorporate the goals and mechanisms of "sustainable development" into the paradigm of "relief" (Cuny 1983, Kibreab 1987, Slim and Mitchell 1992, Zetter 2003, Anderson and Woodrow 1998). The relief paradigm is criticized for being externally managed

and non-participatory, or for failing to recognize and affirm local institutions or skills with which communities might be involved in the management of their own disasters. Critics note the singular tendency of the relief model to implement top-down strategies which preclude situational flexibility or genuine local participation, or for biases which pathologize the victims or survivors and encourage aggressive, external interventions, or for the "restricting logic" that relief bureaucracies impose on the recipients of aid, thus creating dependent, helpless, powerless populations (Harrell-Bond 1993, Adams and Bradbury 1995, De Waal 1997, Platt 2000). They posit that a more developmental approach is ultimately more beneficial in helping prevent future disasters, in that development is more likely to target the structural forces attributed to be at the root causes of vulnerability. Developmentalists assert that emergency relief should be temporary, and that any aid should be quickly followed by rehabilitation, focusing on "capacity building" and "supporting local structures" (see Boutros-Ghali 1992). Critics of this counter that these words can be merely excuses for reducing food and medical entitlements, which then shift the burden to local communities without properly assessing their capacities to manage it (Macrae et al. 1997, Bradbury 1998, Macrae 1998).

The international system of relief can dramatically impact previously remote or marginal areas, and create new and previously inconceivable kinds of employment, education, opportunity, even aspirations, for people. As noted, however, new opportunities tend to fall along preexisting restrictions of gender roles and expectations, class, nationality, or religion (Ferguson and Byrne 1994, Anderson and Woodrow 1998, Sommers 2001, Shepler 2002), and can even result in heightened tension or conflict (Jackson 2003). As mentioned above, the comparative and relativistic stance of the discipline has given it an often critical stance towards dominant Western models of relief, often giving voice instead to local knowledge and local ways of management (Harrell-Bond 1993, De Waal 1997). Others have analyzed the media, and how those affected by disaster are portrayed in popular print. This includes a critique of the media for appropriating images and stories of others' experiences of pain and suffering as a commodity to be bought, sold, manipulated, or marketed in order

to attract more donations (Feldman 1995, Kleinman and Kleinman 1997, Gourevitch 1998).

Relief to Refugees - Contributions of Anthropologist:

Anthropologist have directly confronted the structural imbalances embedded in the relationships between refugees and the humanitarian community. This calls attention to the fact that the very field of “emergency management” often involves an a priori assumption that local people are in need of external managers, and are unable to provide for themselves (Torry 1978b, see also Mileti 1999). Though not an anthropologist, Platt (2000) argues that U.S. disaster policy since 1950 has supplanted moral and community concern with government subsidies and financially-expressed compassion that fosters co-dependency, effectively providing disincentives to local governments in their own attempts to create disaster-resistant communities. Ino Rossi, in studying the long-term reconstruction following an earthquake in Italy, notes that local priorities can be overlooked when they differ from those of donors, and relief agents, and governments (Rossi 1993). The control of information by donors may be linked to anxiety, frustration, and feelings of powerlessness among recipients (Button 1995, Henry 2000a). Malkki, in her work with Rwandan refugees in the Congo, notes that humanitarian knowledge is discursively powerful, and may operate to silence local agendas that run contrary to its own (1996). The recipients of aid are not completely powerless, however; Henry (2002) notes how refugees living in remote, marginal, border areas learned to adapt to the system providing relief aid by interchanging identities between “citizens” and “displaced” in order to maximize benefits and empower themselves on an international stage dominated by foreign relief efforts.

Because one of the most common social reactions to a crisis is flight, problems associated with the management of post disaster population upheaval and resettlement has been examined in considerable detail. One avenue of productive exploration has been with populations fleeing complex emergencies, obtaining shelter in camps set up for refugees and internally displaced people (IDPs) (Colson 2003); this includes the effects of camp policies on the displaced themselves. A growing body of research questions the international

community's motivations in persistently encouraging the placement of refugees in separate, demarcated camps (Harrell-Bond 1986, 1994, Van Damme 1995), as opposed to self-settlement. Infectious disease rates may be higher in camps, despite aggressive, centralized public health interventions; nutritional problems may be higher, especially where there is no individual access to means of subsistence, and environmental damage is greater. Morbidity and mortality may be underreported, as camp dwellers have an interest in concealing any drop in their numbers in order to maintain relief-supply entitlements. There may be further “invisible” damages from introducing a foreign aid system, which undermines local values of sharing, cooperation, or hospitality, that hold society together. Yet despite this research, local and international agencies, usually under UN auspices, use relief supplies to encourage the settlement of displaced people into camps, with the rationale that centralized groups of displaced people are easier to distinguish from the general population and manage.

Starting from Foucault's *Discipline and Punish* (1979), Malkki notes how camps for displaced people can be seen as discrete loci of asymmetric power—set apart, clearly bounded, and with formalized, hierarchical structures. Almost as in a hospital, mobility in the camps may be restricted by numerous identification stations and check points. The “sick” are the displaced, uncertain of the necessary course of events to get them back to a desired state, at the mercy of the authoritative knowledge of camp administrators, and secure in their residence only by maintaining a demonstration of helplessness (Hitchcox 1990, Malkki 1995, Muecke 1992). Harrell-Bond (1986, 1993), Mazur (1988), and Kibreab (1993) document how the paradigms in use by the UNHCR tend to characterize the displaced as “helpless,” despite abundant evidence to the contrary. This bureaucratic conceptualization may be reinforced by an ideological belief that refugees lack the motivation or capacity to work out solutions for their own self-sufficiency (Van Arsdale 1993, Gibbs 1994). Such characterization has severe implications for how refugees are treated: camp authorities may react negatively when refugees demonstrate their own competence, as personal initiative is seen as interfering with the “smooth

functioning” of the camps (Williams 1990). Camps may thus impose a kind of “restricting logic” on its members; powerless to take charge of events affecting their lives, the displaced often become dependent on aid agencies for their basic subsistence (Marchal 1987).

The history of the modern system of international humanitarian relief has received recent attention, as has the ambivalent nature of its entry into disaster affected areas (Crew 1998, Middleton and O'Keefe 1998). De Waal (1993, 1997), for example, in his critique of the self-serving nature of humanitarian interventions in Africa and Asia, implicates the “relief industry” as perpetuating (and exacerbating) the very famines and conflict they purportedly try to alleviate (see also Jackson 2003). Also noted is the inappropriateness of some aid, especially food relief. Henry (2000a) notes that supplying cornmeal and boxed breakfast cereal to West African refugees whose staple is rice may have satisfied regional political and economic pressures within the World Food Program, but did little to alleviate local hunger. Having no idea how to prepare cornmeal into recognizable “food,” Sierra Leonean refugees were forced to sell the cornmeal to local traders in exchange for bags of rice. Unfortunately, this was a bad deal for those in need, as the poor exchange rate in a cash-poor environment meant worsened malnutrition and hunger. Finally, a growing literature looks at the impact of disaster resettlement on host country populations. Gebre (2003) notes that while displaced populations receive aid, research coverage, and policy attention, those hosting the displaced can themselves undergo extreme strain and upheaval, though their plight remains largely unnoticed. Similarly, Leach (1992) and Henry (2002) note that relief efforts for Liberian and Sierra Leonean refugees could upset and sour traditionally cordial host-guest and extended family relationships and obligations.

Critical Analysis

Anthropology offers pragmatic approach in the field of disaster studies not only in the broader concept on comparative, contextual, and cross-cultural perspectives, but also from its extensive work in the remote vulnerable inaccessible places in developing world. The technique of holistic approach by Anthropologist not only separate disasters within their social, cultural, political, economic, and

environmental relationships, from the human behaviors that can cause or influence the severity of disaster, but also to culturally informed adaptations and responses, to the relative social vulnerabilities that mitigate or magnify a disaster's impact.

The anthropology of disasters works under the assumption that those suffering under crisis are not empty vessels stripped bare of their cultural make-up; on the contrary, cultural institutions figure at the center of a society's disaster vulnerability, preparedness, mobilization, and prevention. It follows then, that disaster preparedness as well as relief and reconstruction aid could be more appropriate, efficient, and economical if an understanding of the experiences and perspectives of local communities and institutions were taken into account. This includes understanding the larger social and organizational cultures that may interfere with practices of sustainable, long-term development. Given the top-down biases of emergency relief, anthropology needs to continue to seek practical ways to incorporate local technical knowledge, insight, skills, desires, and needs into the management of disaster situations, so that local people and institutions might be affirmed in identifying problems and offering solutions towards the management of their own situation, and that local capacities may be strengthened to resist future emergencies. Morren (1983), for instance, notes that Kalahari Bushmen in Africa, on the front lines of disaster as first responders to drought, can be remarkably effective in limiting loss and facilitating relief (see also Torry 1988).

In addition, more ethnographic research is needed on the organizational cultures and constraints of relief agencies themselves, along the lines of Kent's *Anatomy of Disaster Relief* (1987). This should move beyond the merely critical, to offer practical solutions as to how to address the gap between research and practice, perhaps focusing on how bureaucratic barriers might be transcended in order to encourage situational flexibility and generate genuine grass-roots participation. This should include the moral, social, political, and economic values that the recipients of aid attach to the items being provided in relief (Prendergast 1996).

Finally, there are methodological concerns that need to be addressed. More critical research is needed into how social scientists can professionally yet

ethically conduct research during and in the midst of disasters. The professional concerns include the identification of methodological biases, such that our work can remain both academically sound and yet policy relevant. There are also ethical concerns that arise from the researcher's position of relative privilege and power (Nordstrom and Robben 1995, Greenhouse et al. 2002, Jacobsen and Landau 2003). This is particularly true for international disasters that occur in developing countries, whose people experience more extreme forms of vulnerability and stress. Through its concern for local sensitivities, anthropology needs to ask how it may better structure questions and better seek information in ways that inflict the least harm from people under situations of severe duress.

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The Juangas – A Particularly Vulnerable Tribal Group of Odisha: A Review

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Abstract

In this review article an attempt is made to provide a brief account of research works carried out on the Juangas of Odisha. It has covered important works made on various themes including on family, kinship, marriage, livelihood and economy, education, political organization, religion and rituals, food habits, sports and recreation etc. This article cannot claim to be a representative review of all the important pieces of academic writings on Juangas in the last six decades or so. However, it has made a humble attempt to provide the reader with a broad overview of works during this period on numerous issues based on reports, books and other research documents produced by authors, organizations etc, and one of the major sources being unpublished research studies of the post-graduate and M. Phil. students of the Department of Anthropology, Utkal University, Odisha.

Key Words : PVTG, Juanga, Odisha.

A. Introduction:

The beauty and richness of India lies not only in its stupendous nature's assemblage but also in the uniquely diverse ethnic groups inhabiting here. The country leads the world in terms of the diversity and total size of the indigenous human population, who are referred in various names viz. the tribes, the Adivasis etc., and constitutionally has been designated, with the name - Scheduled Tribes (ST). As per the census of India 2011, around 8.6% of the total population are STs, which counts to about 104 million people. The State of Odisha has 62 different types of tribal groups residing here and out of them 13 tribes have been categorised as the Particularly Vulnerable Tribal Groups (PVTGs). As per the Census of India, 2011, the total number of tribal population in the State was 95, 90,756 people, with 47, 27,732 males and 48, 63,024 females. The TSP area (Tribal Sub Plan area, 'a strategic policy initiative designed to secure the overall development of scheduled tribes of India') being 69,613.80 Sq.km, with quite a few districts having more than 50% tribal populations. (Paltasingh and Paliwal, 2014)

The facts about the tribal population bring more interest, curiosity, as well as concern because the

rapid socio-economic transformation taking place in their societies when looked from the still dominant and so called 'primitive' living means and 'distinct' cultural lineages. The general scenario of literacy, livelihood, standard of living and access to healthcare is a cause of concern. Livelihood options have until now, mostly remained far from secondary and tertiary engagements. This article envisages in bringing together diverse issues pertaining to the life and living of the vulnerable tribal groups i.e. the PVTGs in the State. A quick preview of the various literatures and reports on the tribal people presents their spatial location and chronological history with the current studies more inclined towards the subject of welfare and sustenance. Due to their abject poor state, the areas of nutrition, safe drinking water, and sanitation, consequently the impacts of these aspects on the health condition together have remained in a very -pitiable state for these marginalized communities. Several initiatives since the time of independence have been taken and/or implemented, as schemes, to improve the condition of these people, but the desired result is far from being achieved. Moreover, concerns over preserving their unique and rich cultural heritages and preventing them from being slowly wiped out because of the fast transforming societies, so far have lagged in

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having effective and serious initiatives too. The learned fraternity from multidisciplinary backgrounds have for quite a long time, expressed interest in studying the (STs) and PVTGs. However, the focus on a true interdisciplinary and trans-disciplinary study of the tribes to accomplish the purpose of evaluation and conservation of their cultural heritages together with finding means to safeguard the indigenous population have remained an unaccomplished task. Hence, within the umbrella of Sustainable Development Goals (SDGs), moving towards a world free of poverty, hunger, disease, with gender equality, access to education and work for all, together with an amicable environment, where peace, security, and sustainability can reign, programmes and initiatives for transformation of the tribal societies towards the same objective should find a place of importance. The task needs a careful and systematic approach to study, observe, perceive, and further explore the means to safeguard and upgrade the condition of these vulnerable communities. The 13 different PVTGs of the state have their own history, culture, practice, and reasons for becoming vulnerable. Hence, each of the groups needs a meticulous inspection to accomplish the present purpose.

A very effective form of information on the different tribes of Odisha is available from the brief but useful research studies of the Post Graduate and M. Phil. students of the department of Anthropology, Utkal University, Odisha. Apart from these, reports, books and other research documents produced by researchers, organizations etc over different times are useful source of information about these tribes. Many of the former researches and their studies on the different tribes date back to as early as the 1960's and it is an ongoing process till the recent years. This review article documents numerous valid information on the PVTGs of Odisha, reflecting upon a chronological history about a host of aspects. The research reports are classified according to certain areas of their life and living or to be precise into a number of themes. The broad themes are thus, (i) socio-cultural and socio-economic development based studies; (ii) studies on biological aspects; and (iii) Archaeological anthropological studies.

Since each theme is equally significant in dealing with the conditions and status of the tribal life and culture, a detailed insight and need of a thorough study and understanding of the tribes separately

becomes imperative, since each of the vulnerable tribes are unique in certain aspects than the other. It is in this context that mention may be made of the Juang Tribe, one of the most vulnerable of the 13 PVTGs in Odisha and as pointed by Dr. V. Elwin (Satpathy 1995), they were once referred as the "Pattea", meaning the wearer of leaf dresses, by the neighbouring people where the Juangs resided. Also as mentioned by Samal M. (1997), these people referred themselves as leaf Sabaras, as they considered themselves as a branch of Sabar tribes, whose members dressed themselves with tree leaves. Detailed study on this particular tribe has been taken up as part of a research project at the Centre of Excellence in Studies on Tribal and Marginalized Communities (CoE in STMC) at Utkal University. The present review focuses on developing an idea of the various socio-economic and socio-cultural aspects of this community by means of theme wise literature study from the already available documents on the Juanga tribe.

There have been many studies on the Juangas from as early as 1960's. However, most of the documents available so far are brief studies by young researchers, undertaken for short span of time and spread over small regions, mainly village level works taken up as case study areas, as part of their post-graduate or M.Phil dissertations. Thus, each has its own limitations. Nevertheless, they are important source of literatures and information to frame an idea about their life processes and various day-to-day functions. Authentic documentation on the Juang tribes are available since 1990's in the form of reports by eminent organisations working on Tribal issues as well as books by independent researchers and social scientists. The methodology involved in most of the works comprised of different methods like observation, interview, questionnaires, genealogical methods, biographical methods, projective techniques, use of anthropological instruments, use of available records and schedule etc., depending upon the type of research work. Hence, the present review is mainly based on the available information and documents on the Juangas, which further envisages in finding the gaps of the earlier works and working in detail on the same issues while documenting their past and present situation with a goal of preserving their rich cultural heritages and various other life functions.

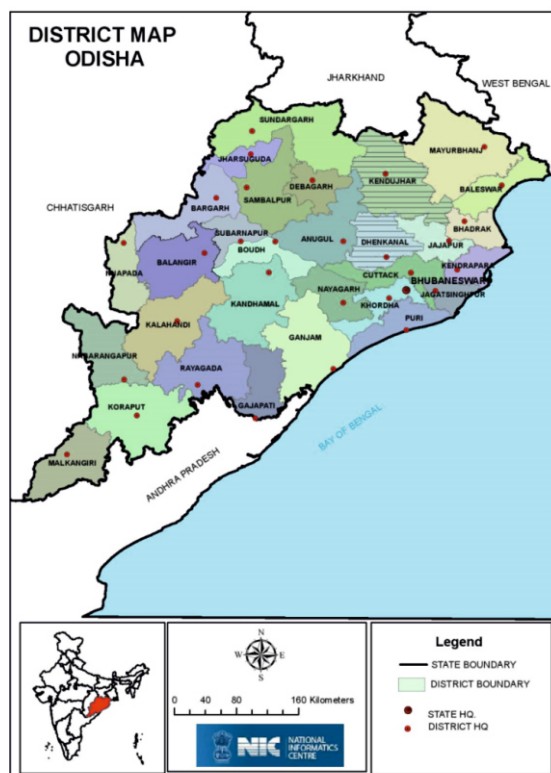
The review reveals that the following sub-themes

have been considered to understand their society, social behaviour, etc.

1. The habitat and living conditions, the means of livelihood, the religious beliefs and practices, family and social structure of these people, etc.
2. Documents studied so far refer to the Case studies of several villages, mainly inhabited by this Tribal people, to present an in-depth picture of various aspects of their daily life. The villages, as referred by the authors, are situated under Dhenkanal and Keonjhar districts of Odisha. Reference of quite a few villages, may be made as follows:

Villages under Dhenkanal district: Sansailo, Gohrikhal, Kanteikola, Bhagbanpur Kathagada, Bebertakaotenee, etc

Villages under Keonjhar district: Kanjipani, Masinajodi, Talpanasnasa, Nalpanga, Jalalpada, Gonasika, Baruda, Phulbari, Kuanr, Mamalaposhi, etc.



Map: (Source: gisodisha.nic.in/State/District.pdf)

Along with the socio-economic aspects, in most of the studies there is mention of the physical environment of the districts and/or the villages taken up for detailed study by the authors. The following map of Odisha presents the location of Keonjhar and Dhenkanal districts in the State, where the Juang tribal people are mainly concentrated.

A review of the works done by numerous authors during different times can be summarised under (i) physical nature and environment, and (ii) socio-economic and socio- cultural environment.

B. Physical nature and environment :

The location and geo-physical description of Keonjhar District has been highlighted in the work of Kar-Mahapatra (1994). Keonjhar lies in the northern part of Odisha between latitudes 21°11' and 22°10' N and longitudes 85°22' and 86°20' E. It is a landlocked district with an area of 8240 Sq. km. Keonjhar district is surrounded by Singhbhum District of Bihar in the North, Cuttack and Jajpur in the South, Dhenkanal and Angul in the West, Sundargarh in the North West, Mayurbhanj and Bhadrak in the East and Southeast respectively. It is one of the undivided districts in Odisha. The district shows a large extent of geographical diversities. The State highway passing through Keonjhar divides the district into 2 different natural regions. To the east lie the coastal plain of Anandapur and a portion of the Plateau-lain of Sadar sub division. To the west, there is a range of lofty hills, which contains some of the highest peaks of Odisha, namely Gandhamardhan (3077 ft), Mankadanacha (3639 ft.), Gonasika (3219 ft.) and Thakruani (3009 ft.). The district has a large share of its land under forest cover and has a combination of red and black soil. The area is also rich in some of the important minerals. The principal rivers are Baitarani and Brahmani, flowing across the district with the former river rising from the hills of Gonasika and emptying in the Bay of Bengal.

The district experiences four seasons, with winter temperature ranging between 7° C to 12° C in the night and 15° C to 25° C during the daytime, while the summer temperature reaches even 40° C and starts dropping with the onset of monsoon. The district is reported to receive 76% of the precipitation from the Southwest monsoon, with the rainfall varying between 1300 mm to 1800 mm.

There are 42 different tribal communities in the district. According to the locational and occupational peculiarities, Keonjhar district may be divided into 3 tribal regions. 1) Upper Keonjhar covering Juangpirh & Bhuinyapirh, where the Juang & Bhuinya, the two most primitive tribal communities inhabit in highest concentration; 2) The industrial mining zone of Barbil and Joda, where the tribes such as Munda, Ho and Santhal are found employed as unskilled labourers in industrial mining complex; and 3) Lower Keonjhar involving the river basin plain area of Anandapur subdivision, where a small number of tribal communities live scattered among the dominant non-tribal population.

The Juangpirh (core area of the Juanga) is a triangular shaped area with Keonjhargarh at its apex and Kuanra and Basantpur at its base. This area is divided into six sub-pirhs with a number of villages included in each of them. The word 'pirh' refers to a group of neighbouring villages and is headed by a Sardar (Samal, 1997). The Juang tribes are representatives of Proto-Australoid racial stock as per Guha's classification. Their abode is known as Juanga pirh. They are among the oldest of the tribes living in the eastern part of India. Juangas live in Kanjipani - Banspal area of Keonjhar district and

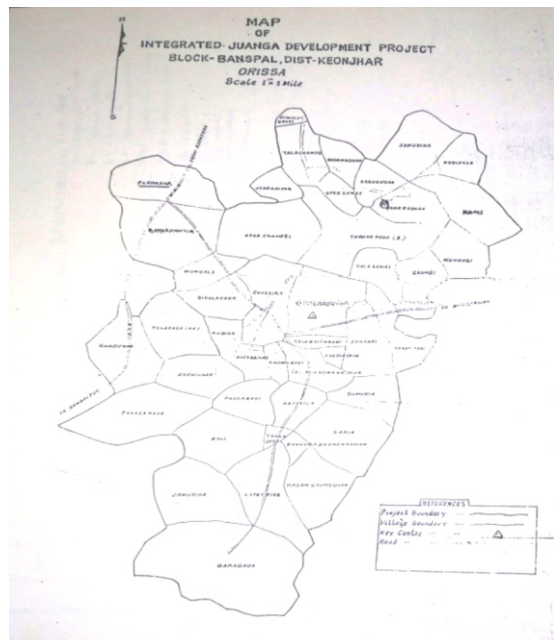
Pallahara subdivision of Angul district. There is no written record of their origin and history, only some oral traditions handed down over generations and reported by the scholars over time.

The following map shows different villages under the Banspal block in Keonjhar district. Juanga Development Agency (JDA), an organisation set up with an objective to look after and work towards the overall welfare and development of the Juanga community and together with the area inhabited by this tribal group. At present, this organisation has been working in collaboration with various other agencies to develop the overall condition of the people and the region. The project region now spans over an extended area integrating more villages



The following map shows the land use and layout of a typical Juanga village in Keonjhar District

Source: Sarangi M. (2002)²⁶



Source: Sarangi M. (2002)

Likewise, such type of maps of the other villages were also prepared by the authors, which portray a quick picture of the physical and infrastructural setup of the villages. The old maps are also particularly important since, they offer an easy way of comparing the recent land use pattern of the villages, thus, depicting the transformation and development process of the Juanga villages, in terms of changes in the infrastructure and amenities in each of these tribal villages. Satpathy (1995) gave a detailed description of the Dhenkanal district, the other prominent domicile of the Juanga inhabitants. The district lies in between 20°29' N and 21°42' N Latitudes and 84°16' E and 86°2' E longitudes and spans over an area of 10827 Sq. Km. It shares its boundaries with Sambalpur, Phulbani, Cuttack and

Keonjhar. The geographical location marks the transition from the thickly populated deltaic region of coastal areas. The district is bordered by the river Mahanadi in the South and Bramhani river flows through the district. Dhenkanal has rich reserves of mineral resources and is the second largest producer of coal and has the highest reserve of platinum in the country. The district has deposits of chromites, graphite, iron-ore, manganese, limestone, quartz crystals, and quartzite. It is reported to be fast growing in industries, with industries such as Talcher Thermal power station, FCI, NALCO etc. The district is estimated to have around 45% of the total area under forest cover comprising of semi-evergreen type and yielding high value timber. The soil belongs to mostly red soil type with patches of laterite and black cotton soil. There are some important peaks in the hill ranges of the Kapilash with the loftiest being Kapilash at a height of 2240 ft. It is a place of pilgrimage consisting of many ancient monasteries. Joranda is another place of religious importance, and a religious movement called Mahima Dharma started from there.

Dhenkanal experiences a climate similar to that of the Deccan plateau regions, with mild summer, cold winters, and heavy rainfall during the monsoon.

C. Socio-economic and Socio-cultural environment:

There are several write-ups and documents, which narrate the inevitable grounds for the change in population dynamics of an area over time. As population increases over an area, the economy transforms and through the process of exchange between groups of people in different regions, as the periphery of human habitation extends, cultural transformation emerges. Thus, a region over time witnesses the dynamics of socio-economic and cultural alteration.

In reference to the above theme, studies conducted by social science researchers, particularly Anthropologists, presents a close picture pertaining to the diverse aspects of the human society. A research document by Palai (1995), mentions of the diverse population theories postulated by eminent researchers and academicians from different fields, referring to the studies related to the demographics, capital formation, social behaviours, quality of human life, etc. within population studies and the

consequent social transformation. Sarangi (2002) had also described the physical feature as well as the different categories, the Juanga tribes classify themselves into. The author narrated that the Juangas classified themselves as 'Thaniya', meaning local, who lived in their own land, referred to as Juang Pirha, which is located in the Gonasika hills. The other section is called the 'Bhagudia', who are the migrated ones and are believed to have fled away from the homeland. The Thaniya Juangs are again divided into 6 sects viz. Kathuapirh, Sathkhandpirh, Jhankhandpirh, Hundapirh, Remonapirh, and Chatisgarhpirh. Each of these pirhs comprises of a number of villages. The author further described the physical appearances of this tribal group. They have medium stature with long head, high cheek bones and broad nose with depression at the root. The colour of their skin varies from brown to dark brown, with black coarse and wavy hair. The shape of their face is oval, eyes slit straight and epicanthic fold is absent. Their community is described as the survival of the stone age in situ by Colonel Dalton in his 'Descriptive ethnobiology of Bengal' (Reference required?).

The following is a quick review of the studies carried out by different authors and organizations from time to time based on the different socio-economic and socio-cultural aspects of this community.

Kinship and family: The family structure of the Juangas were portrayed as patriarchal and patrilineal, with father as the head of the family even after there is breakdown in the joint family system (Anonymous 1961). The mother is addressed as the 'Bain' and the father as 'Abain'. Similarly, there are typical terms used to address sisters, brothers, uncles, husband etc. in their society. Pati R. (1975) studied this tribe under the title 'Kinship system among *Juanga's* of Keonjhar', which help us in knowing their typical socio-cultural norms. The focus of the study is on the Juanga community, their habitat, life process and most importantly the system of kinship existing in their society. The study explains that kinship in their community is complicated, and cultural interpretation of social relationships, social categories, and social groups are formed out of biological or quasi-biological relationships. The research findings are based on the study through a well structured field observation and data collection from the Juanga villages near

Kanjipani in Keonjhar district. A very interesting finding of the study pertains to the descent groups, rules of residence, the position, and responsibility of the different descents. The clan or 'khil' are believed to be tied by common descent. The author also puts forth the rules of adoption among the Juangs, which were mostly observed among close relatives. The study has also documented the terms used for various members in the kinship. The author described the importance of the prevalence of kinship system, viz. having social solidarity arising out of duties towards one another, mutual respect, inter-personal behaviour etc. It is also considered as a device for social control, rituals practised etc. The Juangas have been reported to be characterised by rules of preferential marriage and patrilineal descent. Hence, the study not only centres around the information of the Juangas in a particular area, but throws light in different aspects of their life system as well. Pathak and Mohanty in a study titled, 'The Juanga youth dormitory: An anthropological outline' (in Ota, et al, 2015), gave a description of the different clans present in different villages in the Keonjhar district, where the authors conducted their field study. (Summarised in table 1)

Table No.1

Sl.	Name of the village	Clans
1	Gonasika	Tambarambok
2	Guptaganga	Barumbok
3	Baitarani	Kalari, Gungibok, Kumbakalia
4	Kadalibadi	Samnabok
5	Jantri	Barumbok, Gungibok, Saibok
6	Talabali	Baliali

Source: Pathak and Mohanty (in Ota, et al, 2015)

Apart from these, Dash J., in his work titled, 'Juang Kinship terms, an analysis' (Ota A.B. et al, 2015) provided a detail list of kinship terminology used in the family of the Juangs. Sarangi M. (2002) has presented the different kinship terminologies used in the Juang society as follows:

2. Source: Sarangi M. (2002) Marriage and place of women in society: The Juangas have been reported to be characterised by rules of preferential marriage and patrilineal descent. A Juanga girl after marriage goes to the in-laws place to spend her new life as mentioned by Pati R. (1975) Several aspects of sex and marriage, such as preferred age

Table No.2

Relation	Terminology in Juang language
Father	Abang
Mother	Baing
Small brother	Baka
Elder brother	Ka
Younger sister	Bakanai
Elder sister	Adi
Sister - in - law younger	Salirai
Uncle maternal	Mamu
Uncle Paternal	Atian
Aunt Maternal	Sashu
Aunt paternal	Atinai
Father - in - law	Kaingar
Mother - in - law	Mari
Children	Pusian
Son	Bunan
Grand father	Aja
Wife	Unalow
Brother - in - law	Bharibiar

of marriage, ways of acquiring the mates, bride price, pre-marital sex relation, etc has been highlighted by Mohanty. (in Ota. edited 2015). It further goes to mention of various cultural changes witnessed in the society, viz. amendment of certain marriage rules. For instance, the old rate of bride price has been reduced, and outdated practice of marriage by bride capture is discouraged. Rout S. P. in a study titled, 'Dormitory organization of the Juanga of Keonjhar' (Ota. et al 2015), mentions the following:

(i) During marriage Kangerki and Selanki (boys and girls in the dormitory) always associate with the groom's party (no special rites are observed in the girl's village since the bride is taken to the groom's village for marriage). They bring firewood and the Selanki brings leaves to the groom's house. During the marriage period, they are given food to eat by the groom's parents.

(ii) A major portion of the bride wealth which the groom's party gives to the bride's villagers goes formally to the Kangerki and Selanki of the bride's village.

(iii) To ensure that the bride and the groom spend time with each other in the groom's village, the new couple get special share of rice and a goat or chicken.

(iv) After marriage, the bride and the groom make a ceremonial visit to the bride's village with the bride wealth.

(v) On major ritual days, the Kangerki and Selanki bring firewood and leaves to the Tandakar (...???.) and they are fed by him.

There have been several changes in the marriage pattern of the Juangas. The earlier only means of seeking a bride by capture has been replaced by several other means like (i) marriage by negotiation, (ii) love marriage, as well as (iii) widow marriage. (Tribes of Orissa, (1990; 2004)

Again, Kar (1994), pointed out that marriage among Juangas within the village is not permitted, since they believe that all the people in the village are related by blood. Juangas can divorce and remarry, but such things are not common since, the man loses the bride-price which he paid at the time of the first marriage. Again, in matter of women's position in the society, the author highlighted that the women members are treated as economic assets to the family. They offer hard labour in tilling the land and take responsibility of all the household activities, including collecting fuel wood. However, women do not play any role in decision making process in aspects of religion and politics. Only in certain cases, widows of Buita or Dehuri (????) are allowed to officiate and preside over religious functions.

Sarangi (2002) has categorised the different types of marriages prevalent in Juanga society as under:

- (i) Marriage by negotiation (Kamaniria Kania) gatha - (daging Kania)
- (ii) Love marriage (Manamouni Kania)
- (iii) Widow marriage (Burha Kania)
- (iv) Widower marriage (Randa- Kania)
- (v) Divorce marriage (Daki Kania)
- (vi) Polygamy (Sadra Kania)
- (vii) Polyandry (Randkala Kania)
- (viii) Adopted son in law marriage (Ghar Jawal Kania)

The author also pointed out that marriage is their happiest ceremony, which satisfies their biological

urges and most importantly lifts their social status. Monogamy is practised in Juanga society and is referred to as 'kamandinia kanis'. The marriageable age for boys and girls are 20 to 25 years and 15 to 20 years respectively in general. After attaining the age of marriage, the boys and girls go to the nearby market places or to their 'bandhu'(relation)'s villages to look for partners. There after a messenger, known as 'Kondra', brings the news to the girl's village and the rest of the marital procedures ensues. A much detailed study on the Juanga women and their overall place and participation in the society and economic affairs, has been documented by Satpathy (1995). The author aptly pointed out that development of a group or a society, be it tribal or non-tribal, rural or urban, significantly depend upon the status and position of women in the respective social systems. The author quotes Patnaik (1989), - "the role of tribal women in tribal development should be viewed in the context of 4 conditions: i. Treatment of women, ii. Legal status of women, iii. Opportunities available to women for public activity and, iv. Participation and involvement of women in all efforts of development."

The author also pointed out that women in the Juanga family enjoy better status than the non-tribal women in the society. The factor responsible may be the contributions of these women to the family economy. However, they are not consulted in religious or political matters. The author further mentions that due to the absence of dowry system in the Juanga society, a girl child is not considered a burden, rather is welcomed with joy, since she becomes a helping hand to the mother and becomes an earning member of the family. However, the Juanga women have very less idea and knowledge about the outside world beyond their family and even about the village where they reside. Juanga women are mostly engaged in the agricultural fields and take care of livestock. Satpathy (1995) also pointed out that these days the government has devised many policies and intervention plans for the tribal women. The author also has highlighted the significant participation of the tribal women in the different income generating activities.

3. Recreation, sports, and cultural activities: The Juangas song and dance centres around various ceremonies related to religious occasions, marriage functions etc. They stage dramas based on various themes, mainly in Odia language. The studies mention beautiful folk-tales which are presented by the people of this tribe, which centre on man, animals of the jungles etc. There is also mention of use of different musical instruments. For instance, early in 1961 a socio-cultural study on this particular tribe was carried out under the title 'Songs and dance, drama, folktales, and games of Juanga's of Sansailo and Gohirakhal' (Das 1961a). These cultural aspects of the Juangas were documented based on a case study of the Sansailo and Gohirakhal village in Dhenkanal district. It documents the manner in which these tribes try to add colour to their lives even within the pains, sorrows, and inadequacy in every aspect of life and living. The song and dance centres around various ceremonies related to religious occasions, marriage functions etc. The document mentions of several songs in their own tribal as well as Odia language. They stage dramas based on various themes, mainly in Odia language. The write up also mentions about different games of the Juangas e.g. running, climbing trees, mimicking dance movement etc. Apart from these there are other specific games played by the Juangas. Thus, the document is an effective means to form an idea about the various cultural aspects of the Juangas. A similar study, during the same year, with the title 'A study of material culture of Juang of Kanteikolia' (Anonymous 1961)⁴ also throws light on the unique culture of this tribe. Again, Mohanty S.C. (in Ota et al., 2015) mentions of various cultural changes witnessed in the society, viz. prohibition of wearing beads for women. Kar (1994) mentions about the 'Changu' and 'Jumuki' as the instruments used in dance performances. The dance is thus referred as Changu dance and is performed by playing the changu, usually during marriage ceremonies.

4. Livelihood and economy: Das (1961) had described the subsistence nature and techniques of living means, with agriculture being the main stay of this tribe. These people use various tools to till the land and produce food. Hunting and fishing has

taken a back seat for quite some time. They use various equipments for fire making, basketry, and ceremonial tools etc., as mentioned by several authors. The economic activities centre around mustard and niger oil seeds. Juangas have long depended on shifting cultivation (Samal, 1997). They clear a patch of land on the hilltop referred to as 'Taila', clear the forest and burn them to cultivate crops. And then abandon it to move to another patch. Their means of living also depends on collecting forest products like fruits, roots, tuber, Sal leaves, Sal stick, honey etc. and which are sold in the weekly markets. Sarangi (2002), gave a good narration about the economy as well as the market facilities in the Juanga villages. Apart from the shifting cultivation called 'Koman', the Juangas also depend on other means of livelihood such as wage labour, carpentry, goat herding, business, service and many depend on forest products. The Government has banned shifting cultivation, as there is a rising shortage of land with the population growth.

Their economy is mainly a subsistence economy. They consume almost everything with little surplus for marketing. However, there are a few products they sell in the weekly markets, which are mainly the items gathered from the forests viz. Jhuna, brushing sticks, honey, leaf plates, meats of various wild animals and birds, Mahula and different types of roots, shrubs used for medicine etc. For the rest of their daily necessities, the people depend on the weekly markets, where people from outside the area come to sell their products to these people. Along with money as being the medium of exchange, there is also prevalence of barter system. The markets are not only a place of economic activities, but also serve as a venue for socio-cultural exchange, as pointed by the author. This is where the relatives, friends, as well as women meet their kinsmen. The author had also mentioned that the Juanga people still live Below the Poverty Line (BPL).

5. Religion and rituals: Juangas have traditional beliefs and practice 'Sarnaism' as their religion. During the year 1975, a number of research works were carried out on Juanga community. For instance, Pattanaik, (1975) documented a work

titled 'Religion and magic among the Juangas of Keonjhar, Orissa'. This brief research document depicts the religious practices among the Juanga tribes, which is an essential tool to understand another aspect of the cultural practises existing among the Juanga communities. It is a way of understanding the different beliefs, powers, forces existing in a society and undoubtedly reflects the level of development of a society. The researcher visited a few Juanga villages in Jalalpada, Gonasika and Baruda in Keonjhar district to interact, observe and study the religious practices and the element of supernaturalism, magic that existed in their society. The author points out that the religious beliefs are basically backed by the condition of their surroundings and environment, and 'compel them to believe in Gods, spirits, etc.' They believe that 'Gods, Ghosts and spirits dwell in the nearby mountains, forests and streams to whom they try to propitiate throughout the year by offering sacrifice'. They believe in polytheism, and 'position of Gods and spirits are given serially according to their dignity.' They believe in several mythical characters and spirits, since the tribes believe that their ancestors continue to live as spirits. These human groups have several ritualistic practices and the dates of the observation or celebration is fixed by the ritual head of the village. The author gave a complete list of the deities and the time, month as well as the purpose of the worship. Besides, the Juangas have different rituals related to the life cycle like birth of a child, name giving, death, marriage etc. Moreover, they again have a host of taboos connected to the rituals, food intake and daily living. The Juangas have several magico-religious practices performed by religious specialists, like Sorcery, witchcraft, evil eye, considered as black magic while, among the white magic are deity intrusion, spirit intrusion, ghost intrusion etc. It can thus be perceived from the names that the practice of magic is both for good and bad of the people. But changing trends in the Tribal religion, with the advent of education and changing society has also been documented.

Kar (1994) has highlighted that the religious pattern of the Juangas is very simple. 'Dharma debata' or the Sun God and 'Basumati', the Goddess of Earth

are the two supreme deities characterised by their benevolent characters. They also observe different festivals like Maghipoda, Amba Nua, Asadi, Dhana Nua, Gundadia, China Nuaparba, Pusupunei, Tirtia, Raja, Gamha etc. Again, other Hindu festivals like Akshaya Trutiya, Raja Sankranti, Gamha Purnima etc. are also observed by them. However, they are also superstitious and believe that disease, crop damage, natural calamities etc occur due to the act of the spirits, or curse of God and/or curse of their fore fathers. So the worship is accordingly done to satisfy the Gods and spirits to get rid of the problems.

Sarangi (2002) has highlighted the different life cycle rituals prevalent in the Juanga society, which includes, i. Birth ritual, ii. Puberty ritual, iii. Marriage system ritual, and iv. Death ritual. For instance, in case of a death in a family, the entry of the deceased into the world of the ancestors is initiated with ceremonies. A messenger visits the kin villages carrying an axe on his shoulder as a symbol. The author also narrated the rituals that follow while cremating the dead body. A coin is put into the mouth of the corpse and in case of mal (?????), they also give liquor and tobacco and these, as per belief, symbolizes end of life on earth and to cease the pangs of separation of spirit from the body and send it on its onward journey.

6. Food habit: There is study on the food preparation and consumption behaviour of the people from this tribal group, with items such as vegetables, fruits, fish, meat etc, which finds place in their main consumption list (Das, 1961). As mentioned by Palai (1995), there is a change in the food habit also in line with the transformation of the other social aspects. The traditional vegetables consumed by the Juangas are Aruguna fruit, Tambalia, Besang, Kambyen, Alu (Kanta Alu), Tunga Kadaba, Sai, Pitamasiha etc., available from the forests. However, the traditional items have been replaced by different other vegetables, like, rice, saga etc, as well as meat of goat, pig, rabbit. Samal (1997) further mentions about the overall condition of health and nutrition pattern of the Juangas. The author listed the principal food and drink items taken by these tribes Viz. riv,

mandia, bajra, rasi, jali, boinga, pitadu, etc. Apart from these they use different types of fats and oils for cooking, such as, mustard oil, til oil, kusum oil and tolo oil collected from mahuli leaves. Liquor is a common drink among the tribal groups, which they drink often at times of pleasure and sorrow, in festivals and even offer to the ancestors and deities to keep them in good humour. Mahuli and Handia are the most common beverages. The report titled, 'Nutritional Issues in Juanga Tribes of Odisha' (2016) mentioned that the people of the Junaga tribe have very feeble health. Rice and salt are their staple food. They survive using ration rice and some maize grown near their homes. As the quantity of rice is not sufficient for the whole family, they depend upon the wild tuber collected from the forests. Mohanty mentions of prohibition of beef eating and he, gives a good description of their eating habits, with rice, continuing as their staple food (Ota et al 2015).

In his study Sarangi (2002) mentions That the quality and quantity of food consumed by the Juangas is neither regular nor of accepted standards. The intake depends on the availability and seasonal routine of agricultural cycle and their forest collection. Boiled rice with water known locally as 'Pakhal tana' is their preferred food. Pregnant women eat freshly prepared rice known as 'Lalaptana'. They also eat a powder prepared from mango seeds, bitter potato called 'pitalu' and a fruit called 'Bayanga'. Apart from these, the Juangas prefer non-vegetarian food like, meat of goat called 'Merum', pig, hen, wild animals and birds, beef, fish and insects such as big ants known as 'Kaies' or 'Kurkuti' and 'Jharia pokas or Kalei'. Rice bear, locally known as 'Chalelia' is a necessary item during any occasion. However, pregnant women refrain from alcoholic drinks and meat.

7. Societal structure: The social structure comprises of the local descent group, lineage, clan, etc. 'Youth organizations among the *Juangas*' (Mohanty, 1977,), mentions certain aspects of the society of the Juangas, their culture and social structure, drawing special description of the life, role, habits, practices etc of the Juanga youth. In Juanga societies 'Majang' and 'Melaghar' are

mentioned as the two types of dormitories for unmarried boys and girls respectively, where war, hunting, magic, etc dominates the basic function of the boys unit. It goes to describe the various cultural norms and beliefs of the boys and girls dormitory, it's built up and how the boys and girls become the members of the establishment. The study has made a special reference of 'Talpanasnasa', a village of the Juangas, narrating the location, resource, economy, physical nature, etc.. There is a well knit description of the roles of both male and female members of the Juanga societies, starting from birth to entering the dormitories till the marriage and attainment of old age. It is also noteworthy to mention that the study mentions regarding the change in this structure and practice due to the impact of modernisation.

Mohanty in his research (in Ota et al, 2015) titled, 'Persistence and change in Juang society', portrayed the uniqueness of this tribe. He narrated how they classified themselves as 'Thaniyas' and 'Bhagudias': while the former are the people who live in their own land called 'pirha' and the latter are those who have fled from the homelands. The writer has mentioned how the Juangas have retained their identity even within the changing social structure brought through modernisation process. However, changes are witnessed in various aspects of their life, viz. social control, emergence of modern leadership, etc. Rout in a study titled, 'Dormitory organization of the Juang of Keonjhar' (in Ota et al, 2015), mentions how this institution influences in framing the characters of these tribal people. He has presented a detailed age grade in the Juang Society. The life of the Juangas is based on nine-fold age-grade classification. The following table (table 3 &4) presents the list as quoted by the author. It was also pointed out by Kar Monhanty R.K.(1994), that the Juangas are divided into a number of Exogamous clans called 'bok', which bear the names of plants or animals or villages or places. The tribe is divided into two clan groups namely Bandhu clan and Kutumba clan. The clustering of Juanga village serves the social functions of marriage as well as political functions of maintenance related to the political solidarity and regional leadership organisation.

Age-grade in Juanga society:

Table No.3

A) Age grades for Juanga Males

Sl. no.	Age grades	Approximate age	Residence	Remarks
1	Wadi (child)	Up to 8 years	At home with parents	.....
2	Sana Kanger	8 - 15 years	At majang or at home	.....
3	"Kanger" (unmarried boy)	15 years till marriage	At Majang	Not a formal Kanger
4	Kanger	15 years till marriage	At Majang	Undergone initiation ceremony
5	Kamathara Kanger (married man)	After marriage till old age	At home with wife	Continues to be a formal member of the Majang till he gives a chicken and rice to Kangerki on Amb-Nao
6	Burha or Bauntae (old man)	After 50 years	At home with wife	.....
7	Widower	After the death of Wife	At Majang	.....
9	Bachelor	.....	Do	.....

Source: Rout (in Ota et al, 2015)

B) Age Grades for Juanga Females

Table No.4

Sl. no.	Age grades	Approximate age	Residence	Remarks
1	Wadi (child)	Up to 8 years	At home with parents	.....
2	Tokiali Selan or Kaniari Selan	8 - 13 years	With girls or widows	.....
3	"Selan"	After puberty till marriage	With girls or widows	Not a formal Selan
4	Selan	After puberty till marriage	With girls or widows	Admitted as a formal member after certain observances
5	Guruta Selan (married lady)	After marriage	At home with husband	Before sleeping with her husband must offer cakes, tobaccos and mat to her village dormitory members
6	Burhi (old lady)	After marriage in old age	At home with husband	.....
7	Kamanda Rae (wife of a Kamanda)	After marriage in old age	At home with husband	After the husband becomes a Kamanda and assumes an office
8	Ala bok dae (widow)	After the death of the husband	In her house alone or with girls	.....
9	Spinster	.....	In her house alone or with girls	.....

Source: Rout (in Ota et al, 2015)

It is to be noted that in broad senses, all Kangerki are brothers and all Selanki are sisters to each other as highlighted by the author.

8. Political organisation: An unpublished dissertation titled 'Social control (tradition and modern) among the Juanga of Keonjhar' (Mohanty, 1977) is, basically an exploratory study on the Juanga society from the perspective of their different socio-political organisations and the behaviour of

this tribal group. It incorporates around 70 case studies on different related issues like village disputes between different communities, public reaction against harmful black magician, marriage between cousins, spread of education and leaderships, etc. Apart from these, the author has very efficiently described the history of the study village named Nalpanga, which was inhabited by both the Juanga and the non – Juanga population, along with different socio-economic, cultural and

demographic aspects of the population inhabiting the area. The elements of social control were discussed in categories viz. political organisation, Jural institutions and tributary institutions, and has been supplemented with case studies. It mentions about the various sub- elements of the groups, for instance, the political community of the Juangas having traditional representative councils at various levels, to enact law. On social control the author says that 'social control and family in the Juanga society are interrelated as upon the following points: 1. General societal control over the family and marriage such as for example the laws governing marriage, divorce and bride price. 2. Familial controls over persons such as the influence of the family in the formation of the child's personality. 3. Inter-societal tensions in the family such as are manifested in today's individualism, which has not yet so much affected the Juanga society as like modern or civilised societies'. The author extends the work with the description of modernization of social control viz. introduction of Gram Panchayat system, poll system, spread of communication and education and the general effect of modern agencies.

9. Ethno-science: A research was carried out on the socio-cultural aspect of the *Juanga* tribe under the title 'A study of ethno-science and technology of the *Juanga* of Keonjhar district, Odisha' (Baskey, 1975). The study is basically focussed on the Juanga tribe of Phulbari village in Keonjhar district. It attempted to find the changing paradigm of Ethno-science with change in technology. The study brings forth a host of information on Juanga Ethno-astronomy relating to the concept of astronomical bodies, their calendar year referred for their annual agriculture and other religious aspects. The author considered the Ethno-geography and Ethno-geology relating to the geographic features such as climate, soil, river etc. Their concept of colour perception and preference were also discussed. The author has provided a brief description of the scenario of health and disease, dress and ornaments, subsistence techniques like hunting, fishing, agriculture etc. Technological equipments for fire making, basketry, ceremonial tools etc. were also presented in the work.

10. Education: Societal setup and socio-economic stand of any group of people inhabiting a region over a period of time depends largely on the level of education. In context of the tribes, precisely, the

Juangas, the aspect of literacy and educational level is still quite low. Pradhan (1997) made a detailed study on the educational scenario of this tribal people, based in Keonjhar district. Initiatives and measures have been taken by the Government to popularise education among the Juangas. Juanga Development Agency (JDA) campaigns to spread education among this tribe. The author shared a shocking statistical figure regarding the educational status among the Juangas in the case study area in Keonjhar. The study revealed that only 9% of the people were literates, and all of these literates were males. Further, there was observed a decline in the rate of literacy with the increase in age of the people. The author also presented a picture of transformation of the society with the introduction and spread of education. For instance, it had an impact on the age of marriage, kinship system, etc. A change in methods of cultivation in a village called Manalaposhi has also been observed by the author. However, in the other two villages, Kanjipani and Kuanr, the people could not adopt new strategies of agriculture because of their poor economic condition.

Further, as narrated by Sarangi (2002), Bayapandadhar village in Keonjhar district had a very old school, called, Bayapandadhar Sevashram School, which was established in 1952, by the Government of Odisha, to cater to the educational need of the village residents. The school taught students till grade V and provided facilities like free boarding for the Juanga students. The students staying in the hostel were provided school dresses twice in a year and were served mid day meal on a daily basis. The school had three teachers. The author had also mentioned about an Anganwadi centre, which was under construction then, however the teachers taught the students in the 'Mandaghar'. The village lacked higher education facilities, so the students used to go to Gonasika Abashika Vidyalaya or Keonjhar Ashram School for after completing grade V, which at that time also was providing boarding and lodging for free, to the students of class VI to X. The children in this village went to Suakathi College, in Gonasika for further higher studies. The DPAP programme also came up with a book written in Juanga language named "Una", which means, "Come".

However, the author has pointed out that the participation of girls in education is quite

concerning. A Juanga girl usually puts in hard labour, often with no time for leisure, immediately after leaving bed early in the morning. They take care of household chores like cooking, washing clothes, fetching water from nearby water sources, collecting firewood and eatables from the forest etc. So the parents hardly think of sending their girl child to school. The girls after 14 years of age also work as wage labour to support their parents financially. Moreover, the social norms also prevent the girls from attaining education, as the general belief is that an educated girl would face problem at the time of marriage and it would also be difficult to find an equally educated match for her. However, there is change in the attitude over time, as the author pointed, and there is growing awareness among the community to educate both male and female children. Today even the Juanga women are found to be participating in decision-making process in the family and at times in the community level too. They are seen leading movements against excessive liquor intake in some instances.

11. Demographic Profile

The Juanga population mostly distributed in the hilly regions of the Keonjhar and its adjacent districts and are techno-economically less developed engaged in both shifting cultivation, hunting, gathering as well as plain land cultivation with simple technology and the other group settled in Dhenkanal regions practicing primarily plain land cultivation and hence are categorized traditionally as two breeding groups (Ray, 1972). They are classified under one of the Particularly Vulnerable Tribal Groups (PVTGs) out of 13 groups in Odisha and they speak Mundari dialect. The population of Juanga in Odisha though numerically very small but exhibiting a slow increase in number in recent past when we compare their population from 1961 to 2011. They are 21890 in 1961, 24384 in 1971, 30876 in 1981, 35665 in 1991, 41339 in 2001 and 47095 in 2011 as per the Census of India record (SCSTRTI, 2015). The growth rate of Juang population is slow like other PVTGs and ST populations in Odisha and is lagging behind when compared with the State and National growth rates. The decadal growth rate of Juang population is 13.92 where as it is 17.64 in Odisha and 17.70 in India as per 2011 census. Similarly, their sex ratio appears to be favorable as it is found a consistency i.e. 1013 in 1961, 1051 in 1971, 1033 in 1981, 1059 in 1991, 1014 in 2001 and 1039 in 2011

Census which is better than the State and National average which exhibits a declining trend. Early age at marriage, low literacy rate, low child and working population with low life expectancy at birth and high dependency ratios are some of the typical demographic features of PVTGs of Odisha in general and of the Juangas in particular. The issue of migration in search of livelihood to neighboring cities and states is a big challenge for the present generation Juangas as it brings a threat to their culture as well as survivability.

12. Others: Apart from the above mentioned elements of the society, culture, economy, and political organisations of the Juangas, there are some studies on other aspects of their life, such as description of the dress and ornaments of the Juangas and the specific names used by them, language and daily life processes of the Juangas, demographic aspects, the issue of conflict arising out of various causes in the structural and functional organization of the societies etc. Das (1961c) documented the origin of the Juanga tribes in the Keonjhar and Dhenkanal districts of Odisha based on a case study of the community in the Kanteikola village in Dhenkanal district. A study on the *Juanga* tribe under the title 'Conflict and the *Juanga*: An intra and inter ethnic study in Keonjhar district, Odisha' (Nayak, 1976), introduced the history of the Juangas along with the origin of the clan members. The principal theme of the study centred around the issue of conflict arising out of various causes in the structural and functional organization of their society. Conflict has been described as behaviour that arises out of differences in culture, in social structure etc. Besides, family structure and relation existing with other members of the society are also areas from which conflict emerges. Conflicts between clans are reported to be more intense than feuds, and family conflicts. Sometimes physical violence emerges out of this disagreement. Conflict arising out of property inheritance has been regarded as another type of conflict. The author has categorised conflicts into: (i) conflict over acquisition of woman, (ii) conflict over inheritance of property and (iii) conflict over succession to a post. The author has tried to find a root of the conflict in resource scarcity and the problem in mitigating and finding solution to such scarcity.

The Juang Development Agency (JDA), was established in 1975 in Keonjhar district with an aim

to bring Juangas into the mainstream of development. However, the agency is operating only in 35 villages. Many other Juanga dominated villages still remains outside the purview of the JDA.

If we look at the total Juanga population over the period as reflected in the Census, we find an interesting feature. The total population, which was 47095 as per 2011 census, has fluctuated over the years. The decadal growth has been negative in some years. (Please check with Census / SCSTRTI source and give data for all census periods!)¹

Table No. 5 : Juang Population in the state of Odisha

Years	Population
1891	9173
1901	11159
1911	12823
1921	10454
1931	15024
1941	17032
1951	12559
1961	21890
1971	24384
1981	30876
1991	35665
2001	41339
2011	47095

Source: Census of India, different years

Patnaik (1989), has described the change and development aspect in the Juanga society due to acculturation, reflecting a significant change in their material culture, such as in dressing pattern, household appliances etc. Changes in their economic life was also documented due to fragmentation of holding resulting out of splitting of families.

The Juanga, identified as an Austroasiatic ethnic group, speak a language that belongs to the Munda family of the Austroasiatic languages. Ray and Roth (1984), presented a detailed study on the demographic aspect of the Juanga Tribe. The authors carried out a study based on the data base consisting of 'genealogies containing age-specific vital event data, including births, marriages, and deaths' for 2,370 Juangas. The data are unique in that most of the events recorded pertain to aboriginal, pre-Independence India, before the post-Independence governments initiated attempts to acculturate the so-

called "Scheduled Tribes" (scheduled for development) into Hindu Indian society.

Kar (1994), pointed out that the Juangas have their own specific language. In the Juanga letter code there are 26 alphabets, however, the grammar is not so well developed. They find their language insufficient to specify new things other than expressing their thoughts, hence they use the local Odia language for the purpose of communication and expression. The study also speaks regarding the settlement pattern of the Juanga villages, which are usually small due to hilly terrain (Kar, 1994). However, there are some larger settlements too. The author has described the typical Juanga settlements to be situated on hill tops or slopes or amidst hills and with forests all around. The houses consist of rectangular rooms, with the floors and walls made up of earth with roofs sloping to both sides. Usually there are three compartments or rooms in a typical house used for sleeping, cooking and for storage. There is also a veranda in the front. The oven in the kitchen is situated in one corner and the Juangas believe that their ancestor spirit takes their abode there. Sarangi (2002) in his study mentions that the houses are mostly uniform in shape and size and commonly have a single room with walls made of wooden poles plastered with mud. The roofs of the houses are low, sloping both ways and made up of bamboo, supported by strong beams and thatched with straw or earthen tiles. These houses also have a single passage used for both entrance and exit with a door fixed to it made up of bamboo splits with lattice work. Attached to the house on one side is usually the pig sty and cattle sheds, which are surrounded by palisades of logs fixed to the ground.

D. Conclusion:

In summarising the overall condition of the society, economy, cultural and political status and the physical makeover of their habitat, it may be said that the Juanga society is subject to the process of change, as witnessed in the law of nature. Changes are observed in the way they prepare their food, in their way of dressing, in their perception of health and hygiene and in the access and utilisation of health care facilities. There are changes in the attitude and value systems too. There are attempts and interventions by the Government and non-government organisations for developing and integrating these PVTGs with the mainstream. As found from the different documents since 1960's, the

number of different development programmes for the SC and ST people has increased. For instance, the earlier reports and studies were mainly oriented towards describing the different socio-economic, cultural, physical, political, aspects of the Juangas, whereas the recent reports are a combination of both narratives and statement of the transformation process. In reviewing the different literatures on the Juangas over a period of over 50 years, it is thus evident that this PVTG has remained backward, and majority of them are still below poverty line. There is a society having varied superstitious beliefs and practices, distinct cultural and ritualistic connotation, and geographically they are mostly secluded from the urban centres. Nevertheless, there have been multiple efforts to develop their socio-economic condition and improve their overall status. However, a slow wave of transformation sweeping the Juanga dominated regions along with the other tribal belts in Odisha is clearly evident.

Acknowledgement

The authors acknowledge the support received from World Bank - Odisha Higher Education Programme for Excellence and Equity (WB-OHEPEE) programme, through the Centre of Excellence in Studies on Tribal and Marginalized Communities (CoE in STMC) at Utkal University, in writing this article.

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Distribution and Patterns of Tobacco Consumption among the Tribes of North Odisha.

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Abstract

Tobacco consumption has become a major risk factor for non communicable disease globally. Both smoked and smokeless tobacco use is a forthcoming public health problem, which is contributing to high disease burden in India also. It is found that 71.42 percent total populations do consume tobacco in the studied area. The majority of tobacco consumption in the studied area found among the youth i.e. 48.67 percent. This study was aimed to find out the distribution and pattern of tobacco consumption among the tribes of north Odisha. A crosssectional study was carried out from 18th January 2018 to 12th march 2018 among the tribes of northern part of Odisha, where 210 subjects were participated voluntarily. Random sampling method was used to collect data pertaining to demographic profile; socio-economic status, and the cultural life. These data were gathered by using structured schedule and questionnaire which were administered in the field to accumulate data. Data incorporation and descriptive statistics such as mean, median, frequency and socioeconomic data were calculated by using Microsoft Excel 2007 and SPSS version 20.0. The highest distribution of tobacco consumption found among youths in both the communities, which shows 48.67 percent in Bhumij communities and 43.33 percent in Santal communities. This shows a higher frequency of use of Dukuta and Khaini patterns of tobacco consumption in the studied area i.e. found to be 49.04 percent. It reveals the higher traditional form of tobacco consumption than other mode of use of tobacco.

Key Words : *Dukuta, Khaini, Tobacco, Santal, Bhumij.*

Introduction

Tobacco consumption has become a major risk factor for non communicable disease globally. The instances are increasing in India in fact India has now become one of the largest numbers of tobacco users in the world (Jha et al. 2008, John et al. 2009). According to Dikshit et al. 2000, India has one of the highest rates of oral cancer found globally, and this has attributed to high prevalence of tobacco chewing (Vora et al. 1997, Franceschi et al. 2000, Moore et al. 2000). The substances used in this are a serious public health challenge and it is one of the biggest curses that the modern society has come across (Suryakantha AH. Community medicine with recent advances. 3rd edition. Jaypee Brothers Medical Publishers (P) LTD; 2016). In addition to being a risk factor for cardiovascular diseases and chronic obstructive pulmonary diseases (Gupta et al. 1997

and Padmavati et al. 2002). In 2009–2010, 24.3% of male adults and 2.9% of female adults in India were current tobacco users. Tobacco use is also prevalent among youth. The 2009 Global Youth Tobacco Survey in India shows that 19% of boys and 8.3% of girls were currently using some tobacco product (Vendhan G. India (Ages 13-15) Global Youth Tobacco Survey (GYTS) fact sheet). Additionally, 15.5% of youth never-smokers were likely to initiate smoking within the next year, showing the harmful impacts that tobacco poses to the population health in India (Vendhan G. India GYTS). The predominant forms of smokeless tobacco use in the studied area are in the form of chewing tobacco-leaf, *Dukuta(Dokta)*, *Khaini*, *zarda*, *gundi*, and betel leaf/nut mixture of lime with tobacco also various form of Pan masala i.e. an Areca nut mixtures for chewing - *pan masala*, *gutka*. There are smoked

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tobacco also consumed in the studied area in form of *Bidi(Pungi)*, and *Cigarette*. An instance of tobacco brushing or snuff in form of *Gudakhu* is also found in the studied area. Tobacco contains very powerful addictive chemical substances called nicotine which makes very hard for tobacco users to stop using it (Bonnie et al. 1994). According to a study conducted in Health consequences of smoking a 50 years of progress it is reflected that the Smoked tobacco leads to disease and disability and harms nearly every organ of the body (U.S. Department of Health and Human Services, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014). The smokeless tobacco contains nearly 3000 chemicals; out of them 28 are carcinogenic. Smokeless tobacco in any form (*gutkha, khaini, gudaku, Dukuta*) can lead to nicotine addiction, heart disease, stroke, low birth weight in pregnancy and associated with cancer of mouth, esophagus, and pancreas (Stanfill et al. 2011 and Chaudhry et al. 1990). In India, tobacco consumption is responsible for half of all the cancers in men and a quarter of all cancers in women (World Health Organization, Geneva, 1997). Tobacco consumption is one of the important risk factors for non-communicable diseases (NCD), accounts for more than two-third of all new cases of NCD (World Health Organization Factsheet on Tobacco, 2017). According to the World Health Organization (WHO), nearly 6 million deaths occur every year due to tobacco use, which may escalate to 8 million deaths a year by 2030 (WHO report on the global tobacco epidemic, 2008). A report by operational guidelines national tobacco control programmed in 2012 reveals that the tobacco epidemic is one of the biggest public health threats the world has ever faced, killing around 6 million people in an year and, more than 5 million of those deaths are the result of direct tobacco use while more than 6,00,000 are the result of non-smokers being exposed to second-hand smoke (National Tobacco Control Cell Ministry of Health and Family Welfare Government of India; 2012).

The present study has conducted in the tribal belts of northern Odisha. This study was aimed to find out the distribution and pattern of tobacco consumption in the studied area. The entire study has been carried out in the coastal belt of Odisha among the two communities namely Bhumij tribe of Balasore District and Santal tribe of mayurbhanj district.

Where the bhumij re found to be agricultural labors and the santals found to be industrial labors. The study also aims to find out the cultural behavior among the two communities having two different occupations. A less community based such studies found conducted particularly among the tribal's of India as well as Odisha. This study will be useful for the better understanding of the problem of tobacco consumption and the pattern of tobacco consumption, so that specific interventional measures can be taken at community level.

Material and methods

A cross sectional study has been conducted in two districts of Odisha. A total of 210 subjects from both the communities were participated voluntarily. The present study aims to estimate the distribution and the socioeconomic and demographic association of tobacco consumption in India. The study was conducted in Bhumij tribe in Balasore district and Santal tribe in Mayurbhanj district. A random sampling method was adopted to conduct the research where both cases and controls were studied simultaneously. Structured schedule was used to collect the demography data at primary level and also questionnaire were applied to find out the distribution of tobacco consumption and patterns of tobacco consumption in the studied area. The present cross-sectional study was conducted in between 18th January 2018 to 12th march 2018 to collect data. Then the data were incorporated and systematized into Microsoft Excel 2007. Descriptive statistics such as mean, median, frequency and socioeconomic data were calculated by using SPSS version 20.0. The prevalence percentages of oral lesion in men, women, and the overall population were calculated by using the above mentioned method. To evaluate the socio-economic status of the studied area 75th and 50th percentile method was applied. Based on this method the total tribal subjects were grouped into three broad categories of High Income Group (HIG), Middle Income Group (MIG), and Lower Income Group (LIG). This research has been carried out in conformity with the ICMR's 'Ethical Guidelines of Biomedical Research on Human Participants (2006)'. The subjects who had voluntarily participated were considered.

Results and discussion

The table represents community wise

demographical classification of both the studied area, which denotes that 63.8 percent male volunteer and 36.2 percent female volunteer participated in this study. The frequency table shows a significant association at 0.001 levels of statistics. In the present study 55.3 percent are male, 44.7 percent are female from Bhumij community where as 78.2 percent male and 21.8 percent female were from Santal community which shows the less use of tobacco consumption in females of Santal community. This may be a result of occupation. The Santals of the studied area are industrial labors and the Bhumij are non industrial labors they work in *khadan* (stone mines). During working in stone mines they have a habit of tobacco chewing. They used to do this to avoid Hypersalivisation, this might be a cause of

more tobacco use among these tribes in the studied area. Volunteer participation for the study prevalence found high in youth i.e. 21-40 age groups which reveal 47.1 percent tobacco consumption in the studied area. This is followed by 41-60 age groups which found to be 27.6 percent. Minors and senior citizens found low tobacco consumption prevalence which is found to be 12.9 and 12.4 respectively. The prevalence of participation is also found to be high among youths in both the communities, which shows 48.5 percent in Bhumij communities and 44.9 percent in Santal communities. However the mean age group is found to be 38.83 percent in Bhumij community and 41.41 percent in Santal community.

Table 1: Demographical classification of the studied area of the present study.

Variables	Bhumij (n = 132)	Santal (n = 78)	Total (n = 210)	χ^2 P value
Sex (%)				
Male	73(55.3)	61 (78.2)	134 (63.8)	0.001
Female	59(44.7)	17 (21.8)	76 (36.2)	
Age group				
0-20	19(14.4)	8(10.3)	27(12.9)	
21-40	64(48.5)	35(44.9)	99(47.1)	
41-60	34(25.8)	24(30.8)	58(27.6)	
60+	15(11.4)	11(14.1)	26(12.4)	
Mean age(S.D)	38.83 ±16.76	41.41 ±16.64	39.79 ± 16.72	0.000
Education (%)				
No education	16(12.1)	21(26.9)	37(17.6)	0.000
School	101(76.5)	18(23.1)	119(56.7)	
High school	13(9.8)	32(41.0)	45(21.4)	
Higher education	2(1.5)	7(9.0)	9(4.3)	
Occupation (%)				
Student	5(3.78)	5(6.41)	10(4.76)	0.032
Working	107(81.06)	70(89.74)	177(84.28)	
Non-working/ Unemployed	20(15.15)	3(3.85)	23(10.96)	
Income level (%)				
High income group	19(14.4)	3(3.8)	22(10.5)	0.042
Middle income group	87(65.5)	61(78.2)	148(70.5)	
Low income group	26(19.7)	14(17.9)	40(19.0)	
Mean monthly income in Rupees (Rs)	2566.67	1938.46	2333.33	0.94
Religion	Hindu	Sarna	ST	
Place / Location	(Nilagiri) Balasore	(Tiring) Mayurbhanj	North odisha	

*Chi Square p value.

This statistical analysis is also has significant association at 0.000 levels. From this table it is also came to understand that 26.9 percent population of Santal have no education whereas 23.1 percent of the population are going to school, 41.0 percent are attaining high school and 9.0 percent of people have higher education similarly 12.1 percent people have no education, 76.5 percent people are attaining School, 9.8 percent people are going to high school, and 1.5 percent people have higher education in Bhumij tribe. It indicates that the dropout rate is less in both the communities. The literacy rate is increasing as well as ideal in both of the studied area. By occupation it is seen that the tribal communities of both the studied area reveals 84.28 percent people are working where as 10.96 percent people are not working and the remaining 4.76 percent people are student. By comparing both the studied area it can be cited that 15.15 percent in Bhumij tribe and 3.85 percent in Santal tribe are unemployed where as 81.06 percent in Bhumij tribe and 89.74 percent in Santal tribe are working in various sectors of both government and non government organization. Which shows the unemployment rate is high in Bhumij tribe of Nilagiri region of Balasore district, where as the rate is less in community of Mayurbhanj district. It may be a factor affecting that most of the tribal of this region are daily wage labors and are industrial labors mostly where as the bhumij are agricultural labors.

The socio-economic status of the participants was grouped into three broad categories of High Income Group (HIG), Middle Income Group (MIG), and Lower Income Group (LIG). This grouping was classified according to the 75th and 50th percentile of each individual specific to the tribal group, which shows that in total 10.5 percent fall in high income group, 70.5 percent fall in middle income group, 19.0 falls in low income group. By community wise classification it is seen that 3.8 percent fall in high income group, 78.2 percent fall in middle income group and 17.9 falls in low income group similarly it is 14.4 percent in high income group, 65.5 percent in middle income group and 19.7 percent in low income group in Bhumij tribe. Overall it is seen that both the tribal society fall in middle income group and its percent is also high i.e 70.5 percent. From both of the community it is seen that the studied Bhumij populations are more economically sound than that of Santal community, as the mean of

monthly income is high in Bhumij tribe i.e. 2566.67 and it is 1938.46 in Santal communities.

Table 2: Kind of Tobacco consumed in the studied area.

Kind of Tobacco	Frequency	Percent
No Tobacco consumer	60	28.6
Khaini and Dukuta	103	49.04
Bidi/Cigarette	6	2.85
Betel Leaf/Nut	17	8.09
Both Smoked and Smokeless Tobacco	24	11.42
Total	210	100.0

The above table shows the kind of tobacco consumed in the studied area which shows 28.6 percent peoples do not consume tobacco and the rest 71.42 percent people are tobacco consumer. Out of which the major of the population consume Dukuta and Khaini which is found to be 49.04 percent. 8.09 percent population of the sample consumed betel leaf and betel nut (areca nut). The Smoked Tobacco like Bidi and Cigarette is consumed by 2.85 percent of the population. However 11.42 percent population found to be in both Smoked and Smokeless Tobacco category. The major portion of the total Sample found to be consuming the traditional form of tobacco consumption, which is prepared by them. They collect the tobacco leaves either from their own garden or from the local Haat(Local daily market). The leaf brought from local market is before processed and the leaf from their own garden is fermented by using mahuli (prepared from a local flower called Mahula *Madhuca indica* and *Madhuca longifolia*). Then they add lime with it and after grinding they do consume. It reveals the traditional form of tobacco consumption. This reveals khaini and dukuta consumption has a higher frequency of use in the studied area i.e. found to be 49.04.

Table 3: Distribution of subjects as per their habits of consumer and non consumer of tobacco

Population	Bhumij (%)	Santal (%)	Total (%)
Non consumer	21(15.9)	39(50.0)	60(28.58)
Consume	111(84.1)	39(50.0)	150(71.42)
Total	132(62.86)	78(37.14)	210(100.0)

The above table show the distribution of consumption and non consumption of tobacco in both the tribal groups, which reveals that 28.58 percent of total people do not consume tobacco

whereas 71.42 percent of the total populations consume tobacco. Tobacco is consumed in different forms, it is consumed as chewed tobacco (dukuta, khaini, pan, gutkha, *gundi* etc) The frequency of tobacco users is high in Bhumij tribe which is found to be 84.1 percent where as in santal communities it is found to be 50.0 percent. It is also seen that 15.9 percent of the bhumij population do not consume any tobacco where as 50.0 percent of the population in santal community are non consumer of tobacco.

$$X^2 = 11.69 \text{ df} = 3 \text{ p} = 0.009$$

The above table shows the age group wise frequency distribution of tobacco consumption in both the studied area which indicates that 71.42 percent of the total population are consumer of tobacco and the

Table 4: Age group wise frequency distribution of Tobacco consumption among total population

Age group	Tobacco consumption		Total
	Non consumer	Consumer	
0-20	15(55.55)	12(44.44)	27(12.85)
21-40	26(26.26)	73(73.73)	99(47.14)
41-60	12(20.58)	46(79.31)	58(27.61)
60+	7(26.92)	19(73.07)	26(12.38)
Total	60(28.58)	150(71.42)	210(100.0)

remaining 28.58 percent of the total population do not consume any tobacco. The adult are the high consumer of tobacco that the age group of 41-60 year people consume more tobacco i.e found to be 79.31 percent. Then both the younger population and the older generation are followed by it which is found to be 73.73 percent and 73.07 percent respectively.

Table 5: Association of tobacco with the various socio-demographic correlates of the study population.

	Ever user (%) (n = 150)	Never user (%) (n = 60)	t or χ^2 P value *
Sex			
Male	103(68.67)	31(51.67)	0.021
Female	47(31.33)	29(48.33)	
Community			
Bhumij	111(74.0)	21(35.0)	0.000
Santal	39(26.0)	39(65.0)	
Age Group			
0-20	12(8.0)	15(25.00)	0.004
21-40	73(48.67)	26(43.33)	
41-60	46(30.67)	12(20.00)	
60+	19(12.66)	7(11.67)	
Occupation Category			
Student	4(1.90)	6(2.85)	0.000
Working	136(64.76)	41(19.52)	
Unemployed	10(4.76)	13(6.19)	
Socio economic category			
Higher income group	18(8.57)	4(1.90)	0.001
Middle income group	113(53.80)	35(16.66)	
Lower income group	19(9.04)	21(10.00)	
Educational Category			
no education	24(11.42)	13(6.19)	0.014
school	95(45.23)	24(11.42)	
high school	25(11.90)	20(9.52)	
higher education	6(2.85)	3(1.42)	

*Chi Square p value.

It was previously discussed that the community wise occupation category has a strongest association with the use of tobacco consumption. 64.76 percent of the total sample has tobacco consumption habit in any

form, and all these fall in working category. This association is found statistically significant at 0.000 levels. The socioeconomic condition reflects 53.80 percent are identified as ever user of any form of tobacco which belongs to middle income group. Even the socioeconomic category shows a statistical

significant at 0.001 levels. The educational category depicts most of the population having any form of tobacco consumption habits reveal 45.23 percent population from primary school category. Which shows the lack of educational status has become a major cause of higher the prevalence of tobacco consumption. And as the educational status is increasing in the studied area the prevalence rate is decreasing which shows the less use of tobacco consumption i.e. only 2.85 percent of tobacco consumption habit is found among the persons having higher education. The table also show the highest frequency of tobacco consumed among the youths i.e. found to be 48.67 percent in between 21-40 age groups. Which is followed by the 41-60 age groups i.e. found to be 30.67 percent.

Conclusion

India is the second largest producer and third largest consumer of tobacco. According to GATS India Report (2009-10), the user of only smokeless tobacco has become double than that of the smokers. Both the smoked and smokeless tobacco use is an imminent public health problem, which is contributing to high disease burden in India. Overall in the studied area it is found 71.42 percent total populations do consume tobacco in any form. According to srivastava et al., 2004, the frequency in this studied population is found high as compared to current tobacco user 55.8% in National Household Survey of Drug and Alcohol Abuse in India (NHSDAA, New Delhi: Ministry of Social Justice and Empowerment, Govt. of India and Regional Office of South Asia: UN Office for Drug and Crime). The Global Adult Tobacco Survey (2009-10) report found 34.6% prevalence of any form of tobacco use among adults which found higher prevalence or distribution of tobacco consumption in the present study. The frequency of tobacco consumption found high among the youth which reveals 48.67 percent tobacco consumption in the studied area. In both the communities the rate is found to be 84.1 percent tobacco consumer from bhumij community and 50.0 percent user are from santal communities. This is followed by 41-60 age groups which are found to be 30.67 percent. Rani et al (2003) stated that the prevalence of tobacco consumption increased up to the age of 50 years and then leveled or declined. In the studied area also it is found in between 40-60 age groups the rate is declining. Among the senior citizens in the studied

area the rate is also decreasing. The association between tobacco with age group has a significant level of 0.004 percent only.

The socio demographic status like Education, Occupation, And socioeconomic condition is also have significance with tobacco consumption and its prevalence. As it is discussed only 4.3 percent people have higher education found in the studied area, where as 56.7 percent people have primary education. This reflects the poor literacy rate in the studied area might be a reason for higher prevalence of tobacco consumption in the studied area, and this has a statistical significant correlation of 0.000 levels. Educational status was significantly associated with consumption habit, similar result found in study done by Verma et al., 2018, and also in study done by Garg A. et al., 2012. The demographical classification of both the studied area shows 63.8 percent male and 36.2 percent female volunteer participated in the study and found 0.001 level significant associations. In the present study 44.7 percent are female from Bhumij community where as 21.8 percent female were from Santal community which shows the less use of tobacco consumption in females of Santal community, which may be a result of occupation as Santals found industrial labor and Bhumij are agricultural labors. Bhumij do this practice usually to avoid Hypersalivisation, and this might be a cause of more tobacco use among these tribes in the studied area. The association between tobacco consumption and occupation found significant at 0.000 levels statistically. 71.4 percent of the total sample has tobacco consumption habit in any form, and all these fall in working category. This association is found statistically significant at 0.000 levels. Overly it is seen that both the tribal society fall in middle income group and its percent is also high i.e. 70.5 percent. The socioeconomic condition reflects 53.80 percent are identified as ever user of any form of tobacco which belongs to middle income group. Even the socioeconomic category shows a statistical significant at 0.001 levels. Tobacco consumption was significantly higher in poor, less educated populations. Socioeconomic status significantly associated with consumption in this study, consumption is more among low income groups in a study done by A. Singh et al., 2014, and Garg A. et al., 2012, in a GAT study in India and among a Delhi based study respectively. The

traditional form of tobacco consumption found high in the studied area, the present study shows use of Dukuta and Khaini patterns of tobacco consumption in the studied area found to be 49.8 percent. It reveals the higher traditional form of tobacco consumption than other mode of use of tobacco in the tribals of Odisha.

The tobacco consumption has emerged as the greatest cause of morbidity, and mortality globally. India is the second largest consumer of tobacco, in India tobacco consumption is responsible for tobacco related disease especially oral cancer in Both men and women and it's prevalence is increasing in Odisha also. Screening of population and giving local awareness regarding the association of tobacco consumption to its fatalness and its potential for developing malignancy is very urgent. Thus the study will not only yield the prevalence of tobacco consumption and its pattern only but also to help regarding the factors contributing to it, and to create awareness about it. Awareness creation and thus prevention in the best way to control the increasing of distribution of tobacco consumption in Odisha. The present study was aimed to find out the distribution and pattern of tobacco consumption among the tribes of north Odisha.

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Immunization status among the Munda children of Jajpur District, Odisha: A case study

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Abstract

Vaccination and immunization play major role to reduce infant and child mortality rate. This paper provides the status of immunization of the children of Munda community of Sukinda block of Jajpur District, Odisha and tries to find out the effects of better education of mother and income of family upon immunization and vaccination of children.. The methodology used in this study is interview, observation and survey method. All the data are collected through primary and secondary sources. It is also observed that vaccination and immunization to infants and children are showing an increasing trend due to the intervention of NRHM and the placement of Accredited Social Health Activist (ASHA).

Key Words : *Immunization; Universal immunization program (UIP); National Rural Health Mission (NRHM); Reproductive and Child Health (RCH); Routine immunization (RI).*

Introduction:

Immunization of both mother and child in pre and post natal period has a significant contribution for building a healthy nation. A child is considered fully immunized when he or she receives one dose of Bacillus Calmette–Guérin (BCG) three doses of DPT and Oral Polio Vaccine (OPV) each and one dose of measles by the age of 12-13 months (Rathi and Meena, 2013). According to Duclos et al., (2009) vaccine preventable diseases are responsible for about 25% of the 10 million deaths globally among the under-five years of age children annually. According to National Family Health Survey-3, only one third of the tribal children have received all basic vaccination (NFHS-3, 2005-06). India framed its National Vaccine Policy in 2011 and it has reached a slow progress in the performance of routine immunization (Vashishtha, 2009). India adapted universal immunization program (UIP) under which introduction of various vaccines like Hepatitis B, second dose Measles, Hib, DPT etc are welcome steps (Vashishtha, 2012). According to Ministry of Family Welfare (2012) India has introduced vaccine for Japanese Encephalitis in 111 districts in 15 states having high disease burden. Hepatitis B vaccine all over the country, second dose measles, and Hib

containing pentavalent vaccine are major initiatives as a part of routine immunization (RI) and the UIP targets 27 million infants and 30 million pregnant women every year. Inadequate delivery of health services, lack of accountability, inadequate supervision and monitoring, lack of micro-planning at district level, lower inter-sectoral coordination, lack of knowledge and family support, fear of side effects, lack of support of health workers are cited as major barriers to achieve high RI rates (Agarwal et al., 2005; Agarwal, 2008; Khan and Hazra, 2010). According to Inamdar et al., (2011) immunization is significantly proportionate with socioeconomic status. Similarly according to Malkar et al., (2013) immunization status is significantly associated with low education of mother, place of birth, religion and availability of immunization card. The year 2012-13 was declared as year of intensification of routine immunization (IRI) in India, where the focus was to improve immunization coverage in 239 identified poor performing districts through regular review, monitoring and supervision. Similarly according to Ray et al., (2013) mother's education, father's occupation and negligence of parents are the reasons for incomplete immunization. Besides that according to Chhabra et al., (2007) children who born at home have high risk of being partly immunized

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than those born in hospital. According to Khargekar et al., (2015) the overall immunization status of tribal areas is good. The present study throws some light upon the immunization status of the children of Munda community of Jajpur district of Odisha.

3. Results and Discussion

Table 3.1 Population structure and sex ratio of Munda community of Jajpur

Age group	Male	Female	Total	Sex ratio
0-5	162	146	308	901.23
6-10	123	110	233	894.30
11-15	63	86	149	1365.07
16-20	63	78	141	1238.09
21-25	79	125	204	1582.27
26-30	111	71	182	639.63
31-35	58	43	101	741.37
36-40	40	31	71	775
41-45	27	23	50	851.85
46-50	21	30	51	1428.57
51-55	15	13	28	866.66
56-60	9	6	15	666.66
60+	9	6	15	666.66
Total	780	768	1548	984.61

Table 3.1 shows population structure and sex ratio of Munda community of Jajpur district, Odisha. It is observed that the total population of the above community is 1548 and the sex ratio is 984.61.

Table 3.2: Education of Female of

Village	Education of female						Total
	Illiterate	Primary (1-5 th)	Middle (6-7 th)	High school (8-10 th)	Higher secondary (+2)	Graduation	
Native village	138(44.8)	7(2.3)	1(0.3)	8(2.6)	1(0.3)	0(0.0)	155 (50.3)
Rehabilitated colony	107(34.7)	8(2.6)	5(1.6)	18(5.8)	13(4.2)	2(0.6)	153 (49.7)
Total	245(79.5)	15(4.9)	6(1.9)	26(8.4)	14(4.5)	2(0.6)	308 (100.0)

$X^2=22.776$, $df=5$, $p=.000$

Table 3.2 shows Educational status of women of Munda tribe. It is observed that 79.5 percent females are illiterate. Only 0.6 percent females have completed graduation, 4.5 percent women have

2. Methodology

The present study is based on both primary and secondary sources of data collection. The data was collected from three phases of field work. The 1st phase of field work was for one month duration i.e. from June 2018 to July 2018. The 2nd phase was for four months i.e. from September to December 2018 and the last phase of field work was conducted in the month of October 2019. An attempt has been made to collect data from every married women of Munda community of Kalinganagar area of both rehabilitated and native villages i.e. Gobarghati, Sansilo, Purunapani, Golakpur, Barpal, Haridabahali Upper, Haridabahali lower and Palaskhali villages of Sukinda block of Jajpur district of Odisha. In order to meet the requirements of the study, the information is collected from immunization card and using recall method from 308 mothers. A door to door survey is also conducted. The immunization status among the Munda community is assessed by interview, scheduled questionnaire and observation method. The data are statistically analysed by using SPSS and are compared with secondary data.

completed higher secondary education, and 8.4 percent have completed high school. The educational status of rehabilitated colony is better than the native villages. The result found to be statistically significant ($X^2=22.776$, $df=5$, $p=.000$).

Table 3.3: Monthly Income of Munda

Village	Income						Total
	<5000	5100-10000	10100-20000	20100-30000	30000-50000	>50000	
Native village	85 (27.6)	50 (16.2)	16 (5.2)	2 (0.6)	2 (0.6)	0 (0.0)	155 (50.3)
Rehabilitated colony	36 (11.7)	23 (7.5)	45 (14.6)	29 (9.4)	13 (4.2)	7 (2.3)	153 (49.7)
Total	121 (39.3)	73 (23.7)	61(19.8)	31 (10.1)	15 (4.9)	7 (2.3)	308 (100.0)

$X^2=82.192$, $df=5$, $p=.000$

Table 3.3 shows that the monthly earnings of 39.3 percent Munda women are found to be less than Rs 5000 rupees. When compare both the community, it shows the rehabilitated Munda have better income status than native Munda. The difference in monthly income among the two areas are statistically significant ($X^2=82.192$, $df=5$, $p=.00$).

Table 3.4: Immunization status of children among the Munda

Immunization status	Village		Total
	Native village	Rehabilitated colony	
Yes	121(39.3)	130(42.2)	251(81.5)
No immunization	34(11.0)	23(7.5)	57(18.5)
Total	155(50.3)	153(49.7)	308(100.0)

$X^2=2.433$, $df=1$, $p=.119$

Table 3.4 reveals that 81.5 percent children of the studied population are immunized and 18.5 percent are not immunized. Higher percentage of Immunization is seen among the children of rehabilitated areas than the native areas. In rehabilitated areas 42.2 percent children are immunized whereas it is 39.3 percent in native villages. The difference in TT Immunization status when compared among the two areas are found statistically not significant ($X^2=2.433$, $df=1$, $p=.119$).

Table 3.5 TT Immunization status among the children of different districts in Odisha.

Immunization coverage districts in Odisha	AHS(2011-12) Immunization (%) of 12-23 months children	(AHS-2012-13) Immunization (%) of 12-23 months children
Khordha	40.0	60.1
Mayurbhanj	73.3	79.7
Koraput	42.7	51.6
Malkangiri	18.1	29.6
Nabarangapur	45.0	50.4
Jharsuguda	83.7	84.3
Jagatsinghapur	45.5	58.1

Table 3.5 shows TT Immunization status among the children of different districts of Odisha and it reveals that immunization coverage is lowest in Malkangiri and highest in Jharsuguda. But the overall immunization status has increased in subsequent years in all the districts.

Table 3.6 shows TT immunization status of different states in India

Immunization coverage States in India	DLHS-3 (2007-08)	CES (2009)	AHS (2012-13)
Assam	50.7	59.1	64.4
Bihar	41.4	49.0	69.9
Chhatisgarh	59.3	57.3	74.9
Jharkhand	54.0	59.7	69.9
Rajasthan	48.7	53.8	74.2
Odisha	62.3	59.5	68.8
Uttar Pradesh	30.2	40.9	52.7
Madhyapradesh	36.0	42.9	54.9
Uttarakhand	62.9	71.5	75.4

Table 3.6 reveals that TT Immunization status of different states across India showing an increasing trend. In Odisha the immunization status is 62.3 % in the year 2007-08 but in 2009 it is slightly decline i.e. 59.5% and it again increase (68.8%) in the year 2012-13. But when comparing all the states in India the result showing an increasing trend of achieving immunization.

Table 3.7: Type of immunization status of Child among the Munda Tribe of Jajpur District

Type of immunization status	Village		Total
	Native village	Rehabilitated colony	
No	34(11.0)	23(7.5)	57(18.5)
All	110(35.7)	126(40.9)	236(76.6)
Only polio	9(2.9)	4(1.3)	13(4.2)
Polio+bcg/dpt	2(0.6)	0(0.0)	2(0.6)
Total	155(50.3)	153(49.7)	308(100.0)

$X^2=7.118$, $df=3$, $p=.068$

Table 3.7 reveals 76.6 percent children get full immunization, 4.2 percent children get only Polio, and only 0.6 percent children get both Polio and BCG/DPT. It is also observed that the immunization status of rehabilitated colony is better than the native villages. It shows statistically significant result ($X^2=7.118$, $df=3$, $p=.068$).

Table 3.8 shows that 40.3 percent Munda women prefer home delivery. The percentage of institutional delivery is 38.3 percent and the women attended both home and institutional delivery percentage is 17.9. It also reveals that the home delivery is high among the native villages in comparison to Institutional delivery. But in

Table 3.8: Preference of Type of Delivery among the Munda women.

Village	Type of delivery					Total
	Home	Institution	Both home and institution	Infertility	Pregnant	
Native village	70(22.7)	44(14.3)	34(11.0)	5(1.6)	2(0.6)	155(50.3)
Rehabilitated colony	54(17.5)	74(24.0)	21(6.8)	3(1.0)	1(0.3)	153(49.7)
Total	124(40.3)	118(38.3)	55(17.9)	8(2.6)	3(1.0)	308(100.0)

$$\chi^2=13.585, df=4, p=.009$$

rehabilitated colonies the Institutional delivery is high i.e. 24.0 percent in comparison to Home delivery which is 17.5 percent. The result is showing statistically significant ($\chi^2=13.585, df=4, p=.009$).

Table 3.9 institutional delivery of different districts of Odisha

Institutional delivery in different districts of Odisha	DLHS-3(200708) delivery (%)	AHS (2011-12) delivery (%)	AHS (2012-13) delivery (%)
Malkangiri	14.8	45.5	52.6
Nabarangapur	15.9	45.1	53.6
Koraput	18.9	50.5	53.4
Mayurbhanj	43.1	77.0	79.7
Jagatsinghapur	79.7	93.0	95.9
Khordha	70.8	90.8	92.9
Jharsuguda	64.9	82.3	85.8

Table 3.9 reveals that the institutional delivery among the above districts of Odisha showing increasing trend. The district like Malkangiri, Nabarangpur and Koraput shows least coverage whereas district like Khordha, Jharsuguda, Jagatsinghapur and Mayurbhannj attend good results.

3.1 Discussion

Sex ratio measures the balance between males and females in human population and it reflects the status of maternal and child health care programmes existing in a given population. From the above table (Table 3.1), it shows that in the present Munda community, the sex ratio of the population is 984.61, which is higher than state (978) and national (940) averages (2011, Census). Better sex ratio indicates a better health status among the Munda population. The sex ratio is lowest in the age group of 60+ years and highest among the age group of 11-20 years. In the age group less than 5 years, the sex ratio is

901.23. This finding reflects the lower preference of the girl children over boys or gender discrimination. This population also shows lower percentage of females in comparison to males. The population distribution became lower with increase in age, which indicates the decreasing life expectancy of Munda people. The deviation in sex ratios may be attributed to lower birth rate or higher death rate of female and also due to high incidence of female deaths. Preference of male child is another reason for declining female ratio in this community.

Education plays a pivotal role in the overall wellbeing of an individual. It makes a person more informed and reasonable by enabling him to distinguish between fact and myth. Especially, Mother's education is significantly associated with immunization status. Because an educated mother understands the importance of immunization and it is a necessity for her child's health and wellbeing. Table 3.2 shows educational status of the women of present community. It is observed that most of the women (79.5percent) are illiterate. Only 0.6 percent females have completed graduation, 4.5 percent women have completed higher secondary education, and 8.4 percent completed high school. Due to poor economic condition and less awareness, the females of this community are failed to get proper education.

Like education, income also influences significantly immunization status of a population. Table 3.3 shows the monthly income among the Munda community. The Munda women are engaged in agricultural activities either in their own land or work as agricultural labourers. Some of them are daily wages labourer too. The percentage of women doing service and business is low. On the other hand, men are doing various works in different fields. Some are doing business, some men works as contractors, some men are engaged in agriculture, and some of them are daily wage labourer. Few of them are unemployed; hence they do not have any

fixed income. But the men who are employed in plants or other fields have more static income. The employed person who have completed high school education only, get the monthly salary of Rs 18000-20,000 and the person who is completed professional Degree or Diploma or ITI, they get a salary of Rs. 30, 000-70,000 per month. So there is a remarkable difference found in the monthly income of the native and rehabilitated Munda people. It is also observed that only 39.3 percent Munda family are coming under below poverty line. 23.7 percent coming under the income level of Rs. 5100-10,000, followed by Rs.10,100-20,000, Rs. 20,100-30,000 and Rs. 30,000-50,000 group with the decreasing percentage of 19.8,10.1 and 4.9 respectively. Only 2.3 percent of rehabilitated Munda family are coming under middle income group (>Rs. 50,000).

Both vaccination and immunization play major role for childcare. It protects the infant/ child from various diseases and illness. In the present study, it shows good results. Due to active participation of ASHA and Anganwadi worker, it is observed from the Table3.4 that 81.5 percent children are immunized. It supports the study by Khargekar et al., (2015) that the overall immunization status of tribal areas is good. According to DLHS-3 (2007-08) the total immunization coverage of Odisha is 62.3 percent which has increased and attained 68.8 percent in 2012-13 (AHS 2012-13). When compared with the other states, the rate of growth in Odisha was found to be low i.e. 59.5 percent in 2009 (CES 2009). Immunization status of different districts of Odisha shown in Table no 3.5, the immunization status of Malkangiri, Koraput, Jharsuguda, Nabarangpur, Khordha and Jagatsinghapur are 18.1, 42.7, 83.7, 45.0, 40.0 and 45.5 percent respectively (AHS 2011-12). But in the year 2012-13 the immunization coverage is highest in Jharsuguda i.e., 84.3 percent, in jagatsinghapur it is 58.1percent, in Khordha it is 60.1 percent, in Nabarangapur it is 50.4percent and Koraput 51.6percent. The lowest coverage district is Malkangiri i.e. 29.6percent and the immunization status of Mayurbhanj is 79.7 percent (AHS 2012-13). Introduction of National Health Mission (NRHM) and Reproductive Child Health Care (RCH) programme have improved the health care practices in the studied areas of Jajpur. From the above study, it is concluded that the present study area shows increasing immunization coverage like other districts of Odisha. It is observed (Table

3.7) that 76.6 percent children get full immunization, 4.2 percent children get only Polio, and only 0.6 percent children get both Polio and BCG/DPT. It is also observed that the immunization status of rehabilitated colony is 49.7 percent. It rejects the study of (TATA Steel Corporate Affairs 2011) the rehabilitated Munda community achieve 100% immunization.

Table3.6 reveals that TT immunization status of different states across India .In Odisha, the immunization status is 62.3 percent in the year 2007-08 (DLHS-3) but in 2009 it is slightly decline i.e.59.5 percent (CES) and it again increase (68.8percent) in the year 2012-13(AHS). The states like Rajasthan, Uttarakhand and Chhatisgarh achiving more than 70 percent immunization coverage in the year 2012-13. The lowest reported states are Uttar Pradesh and Madhyapradesh which was 30.2 and 36.0 percent in the year 2007-08 and 52.7 and 54.9 percent respectively in the year 2012-13. But when comparing all the states in India the result sowing an increasing trend of achieving immunization (DLHS-3, 2007-08., CES, 2009, AHS-2012-13).

Delivery is the most important indicators of reproductive child health. Hospital delivery is closely associated with immunization status (Chhabra et al.,2007). Institutional delivery is considered as an accepted mode of delivery in health care practices. Table 3.9 reveals the percentage of institutional delivery of different districts of Odisha. As per District Level Household Survey (DLHS) 2007-08, the average institutional delivery in Odisha is 44.3 percent while safe delivery has been reported 50.9 percent. The district like Jagatsinghapur, Khordha, Puri, Cuttack, Jharsuguda showing good results and the percentage are 79.7, 70.8, 63.6, 68.3 and 64.9percent respectively. The poor performing districts are Malkangiri(14.8), Rayagada (18.3), Koraput (18.9), Nabarangapur(15.9) and Gajapati(19.7)percent. According to Annual Health Survey (AHS 2011-13), the institutional delivery is showing a drastic change. All the above districts are showing better immunization coverage status in subsequent years. But in the studied area, now people are going to the hospital for safe delivery. Introduction of NRHM improves the health care infrastructure and delivery of health services in Kalinganagar area of Jajpur. So,

more than 35 percent women prefer institutional delivery. Table 3.8 shows that 40.3 percent Munda women prefer home delivery. The percentage of institutional delivery is 38.3 percent and the women attended both home and institutional delivery percentage is 17.9. It also reveals that the home delivery is high among the native villages in comparison to Institutional delivery. But in rehabilitated colonies, the Institutional delivery is high i.e. 24.0 percent in comparison to Home delivery which is 17.5 percent. The result is showing statistically significant ($X^2=13.585$, $df=4$, $p=.009$).

From the above discussion it is clear that institutional delivery increases the immunization status among the children of different districts of Odisha, and so also among the Munda community of studied villages.

4. Conclusion

In the present study an effort has been made to throw some light upon the immunization coverage of 12-23 months of children of Munda community of Jajpur. It is found out that the Munda community has better immunization coverage than other districts of Odisha. The study proves the hypothesis that better the education of mother reflects better immunization coverage. It also proves that hospital born children have better immunization status than those born at home. The rehabilitated Munda women have better education than the native villages and thus they prefer hospital delivery over home delivery. High income also plays vital role for better immunization coverage which is found to be true in the studied population. Besides that, introduction of National Health Mission (NRHM) and Reproductive Child Health Care (RCH) programme, and active support of Accredited Social Activist (ASHA) and Anganwadi workers improves the overall immunization and vaccination practices in the studied area.

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A Sketch on Conservation of Palm Leaf Manuscripts

Arun Kumar Nayak

Abstract

Palm leaf manuscripts bear the literary heritage of the civilized nations as carriers of wisdom and knowledge; hence utmost care be given for their conservation for our posterior generations using modern scientific techniques and technology. However, some of the repositories do conserve their palm leaf manuscripts using the age-old traditional techniques without weighing its merits and demerits in mind in their scientific perspectives. Though many traditional methods need recommendations due to their efficacies, some of the traditional techniques have deleterious effect upon palm leaf objects; hence to be avoided. Therefore, the author desires to highlight those modern scientific conservation techniques in this paper as standardized by National Mission for Manuscripts in India)

Key Words : Manuscript, Palm-leaf Manuscript, Conservation, Scientific Techniques, Preventive and Curative Conservation

Introduction:

The term 'Manuscripts' means a handwritten document on the support materials as per the availability and choice of the scribe or author. Manuscripts are found in different parts of the world where human beings put their thoughts and experiences into a written form. All over the globe there was tendency to write upon such material to leave their imprints while giving shape to their ideas, thoughts, expression, emotion and belief in the form of literature with the help of known script of their land. Human beings over the ages have used support materials which may be procured from organic or inorganic materials. That means those support materials may be organic or inorganic. If organic, then it may be plant or animal origin. However, the plant-based support materials, hence the manuscripts, are popular all over the world. The earliest writing supports prepared from plant material are acknowledged to be the 'papyri', of the third millennium BC, from the Old Kingdom of Egypt. In India we have different types of manuscripts based upon support materials such as, 'Bhuj-Patra', or Birch bark in North-Western India, 'Sanchi pot' in Assam, Tripura, Meghalaya, or

North-Eastern states of India, 'Kaditas' in Karnataka (Kharbade, 2010) and palm leaf manuscript in Eastern and Southern India, called as "Pothe" in Odisha.

Out of these types of manuscripts the palm leaf manuscripts, which are available in various parts of world with tropical climate especially in the South-West Asian countries like India, Indonesia, Sri Lanka, Thailand etc are being dealt with here focusing on their scientific conservation process visa-vis the traditional techniques are discussed in this paper. This paper has also more relevance in the context of Odisha as palm leaf manuscripts are abundantly seen in coastal region of the state and it has unique distinction of having more than five lakhs of palm leaf manuscripts in its repositories as surveyed by National Mission for Manuscripts, an agency working under the aegis of Ministry of Culture, Government of India, New Delhi.

These palm leaf manuscripts were used by not only by kings, royal people, zamindars, nobles, scholars, but also the commoners as their pastime affairs. They do prepare the manuscripts as their obligation of socio-religious duties so that the very content of the manuscripts is copied and carried forward for the

next generations. Thus, the manuscript writing tradition evolved as to why we see even today we have lakhs and lakhs of palm leaf manuscripts lying in different repositories and households. But those extant manuscripts as available should be conserved in scientific manner to re-construct our glorious past as they carry with them the social, cultural, historical, and aesthetic values of the- then society. If deciphered in right earnest, then it could throw new light on our history and civilization. Hence an effort has been made to focus upon the types, nature and composition of palm leaf manuscripts and the scientific conservation processed employed to preserve them for the posterity vis-à-vis the traditional techniques.

Palm Leaf Manuscripts

(a) Type and nature

We have different type's palm-leaves seen in nature. Plant Scientist says that we have more than 4000 species of the palm plants existing in the world (Prajapati). In India, we basically use only two types of palm leaves which are widely used for writing purposes namely; *Tala* or Palmyra palm and *Sri Tala* or fan palm or Talipot palm. The botanical name of *Tala* is *Borassus flabellifer* Linn and that of *Sri Tala* is *Corypha umbraculifera* Linn (Harinarayan, 1995). Palmyra grows to a height of 15 to 20 meters. Its leaves are thick and coarse and suitable for engraving with a stylus. But *Sri-Tala* is taller and goes up to a height of 20 to 25 meters and has a thinner trunk than the palmyra. Also, its leaves are thin and flexible and light-colored. Writing is done in *Sri Tala* with carbon ink on these leaves and it could resist damage better than those of Palmyra leaves. *Sri Tala* or fan palm is seen in South India, where as in Odisha we have *Tala* or Palmyra palm which is used as writing material due to its easy availability in the region. And this is the normal practice in the history of man that those materials which are available in the surroundings of the inhabitants are basically used by that society and Odisha traditionally has been using the palm-leaf as writing material through the ages due to same historic reason.

(b) Bio-Chemical Composition of Palm Leaf:

We know that a mason must know the tools that he is going to use; similarly before going for conservation of any art object, we must know the composition or

constitution of that object like how it is made up of, the types of its material contents, the science of its bonding and the physical and chemical nature of the object etc. The palm-leaf manuscript is an organic material and gets collected from palm plant abundantly seen in tropical climates of South-East Asian nations like India, Indonesia, and Sri Lanka etc. In India we see those manuscripts in Eastern and South India as these regions due to their geo-climatic condition are favourable for growth and propagation of palm plants. Bio-chemically, it is made up of carbohydrates, proteins, lignin, fats, minerals, resins, colouring agents etc. along with other organic compounds. Carbohydrate is basically, constituted by the chief chemical elements like carbon, hydrogen, oxygen and other elements in a fixed proportion and found as celluloses, hemicelluloses, etc. The celluloses are polymers of mono-saccharides of glucoses like alpha and beta glucoses and exist in fibrous state. These are commonly seen as hexose sugars and it contains 10,000 monomers as units in it which are chemically bonded in straight form though cannot be seen to the naked eye but in certain electron microscopes. This cellulose rings in the chain is packed and bundled and not seen in free state, and cellulosic rings with other constituents give it to crystalline and non-crystalline regions which are permeable to water or any fluids. Thus, the skeletal structures of the palm-leaves are nothing but the cellulosic fibres. The flexibility of the leaves is due to its fat contents, and the binding strength is given by gums or resinous substances. These resins consist of linked rings of carbohydrates like that of glucose molecules but with complex branched structure. Gums are permeable to water and the other fluids. Lignin or pectin substances give the durability to the leaves and form complex acids when undergone oxidation or hydrolysis and cause embrittlement of the manuscripts. (Prajapati, 1995)

(c) Factors of deterioration

Palm leaf is an organic object, hence constituted of the bio-chemical compounds as stated above. These inherent organic compounds are subjected to deterioration due to changes in their internal configuration when exposed to various factors as briefed here-in-under.

(I) Climatic Factors

The climatic factors include light, humidity, temperature, wind, rain, moisture etc. Palm plants as

stated above are seen in India, especially the Southern and Eastern part of the country where palm plants are seen abundantly. In these climates, there is huge variation of humidity level of the atmosphere measured as relative humidity in terms of percentage. If it is around or less than 25% it is dry climate and more than 75%, the humid condition prevails in the adjoining atmosphere. High humidity, for example, helps for growth of micro-organisms like fungus which feed upon the carbohydrates as a substrate and start the disintegration of the folios. And in low humidity, due to loss of moisture content the palm leaf becomes brittle, and fragile. If this condition prevails continually, then the palm leaves are fragmented into pieces.

When the variation of humidity is coupled with another natural parameter like temperature then, the series of chemical oxidation and reduction processes occur and thus help causing the materials more and more prone to be decay and disintegration.

Light, being one of the important climatic factors, is an electromagnetic radiation and travels in waves. It have a wide range of wavelengths, from gamma rays to radio waves including the visible light and ultraviolet light. The more energetic waves have shorter wave length and less energetic wavelengths have longer wave lengths. The gamma rays are most energetic light waves and along with other shorter waves like ultravioletlight cause destruction of the organic compounds of the leaves due to its penetrating capacity and also due to the photo-chemical reaction with the various bio-chemical constituents of the leaves. Due to its high energy content it causes a series of oxidation-reduction processes thereby causing alteration in the electronic configuration of the organic compounds of the palm leaves. Thus, properties of the compounds change drastically and deterioration process is accelerated in due course of time. So, the relative humidity along with the light and temperature can cause immense problems for the palm leaves.

(ii) Polluting factors:

Due to modernization and industrialization our atmosphere now-a-days is polluted with various gaseous substances like oxides of Sulphur, nitrogen, carbon, phosphorous, ammonia etc. especially in cosmopolitan cities and towns. Sulphur produced due to combustion of coals, petroleum oils are acidic

in nature and after dissolving in water becomes sulphuric acid and remains upon the palm leaves. The oxides of nitrogen formed in atmosphere are nitric and nitrous acids and are powerful oxidizing agents causing embrittlement of leaves that of like sulphuric acids. Ammonia produced in atmosphere is dissolved in water and forms salts and cause acidity upon the surface of the palm leaves.

(iii) Biological factors:

Biological factors consist of insects and pests, animals or any microbes that attack palm leaves as a substrate upon its surfaces. Examples are silver fish, cockroaches, book worms, termites, fungus etc. The insects and termites feed upon the glue, starch, gelatin, cellulose, and even burrow tunnels in the folios of the manuscript. The microbes or parasites like fungus live upon the organic materials of the leaves with dust and dirt. In such a scenario, when the fungus is grown in humid conditions, folios are stacked with each other inside the bundle of the palm leaves and not easy to separate them out. If unattended for a prolonged period, then folios of the manuscripts are damaged so also the whole bundle of palm leaves. Even, rodents destroy the palm leaf bundles to a great extent as seen in the repositories; so also, the mishandling and carelessness of the human beings knowingly or unknowingly.

Therefore, the causative agents like climatic factors, polluting factors and that of biological factors do damage the palm-leaf manuscripts. This is the reason as to why we have lost these manuscript resources since years and process is still in continuity unless conserved scientifically.

Traditional Techniques of conservation of palm leaf manuscripts: Merits and demerits

Before advent of modern scientific conservation techniques and chemicals, the custodians of palm leaf manuscripts in mutts, temples, museums, libraries as well as private repositories were traditionally using some of the techniques while applying indigenously prepared organic substances or plant derivatives to conserve these art objects. However not all, but some of these processes were, later on, found to have deleterious impact upon the longevity of palm leaves of the manuscripts in the long run and seen damaged more instead of conserving for posterity. These rudimentary but commonly adopted practices or techniques, as

mostly done in rural repositories need to be mentioned here. People generally expose the palm leaf manuscripts to the strong sun light in the September and October after monsoon season to dry the moisture content of the bundles due to humid atmosphere in the rainy season. They apply castor seed oil for flexibility of the dried leaves, and use the paste of turmeric and neem for its insecticidal properties. The juices of the leaf of the bean plant are used for making the engraving legible for reading the manuscripts etc.

When the manuscripts are subjected to strong sun light it kills the biotic agents like insects, larvae, fungus and remove moisture from the surface of palm leaves deposited during monsoon seasons. It is beneficial for the time being, but in the long run it harms the manuscript as the ultra-violet rays in the electromagnetic spectrum of light waves due to its heating effect cause destruction of the already dried leaves. So, after a particular period these palm leaves becomes brittle as they lose the essential oils that bind the material substance. We know from the biochemical composition of the palm leaves how the tissues of the leaves are constituted of the cellulosic compounds with chemical bonding. These chemical bonds especially in the epidermal layer of the cells of the leaf surface are weakened or even destroyed and manuscripts with their folios become more brittle and made into pieces while handling it in due course.

Similarly, the organic juices made out of certain plant leaves are used as preservatives or other purposes without analyzing its impact on surface. It is learnt that bean leaf juices or even castor oil is used in palm leaf manuscripts to induce flexibility as well as to make it readable due to penetration of pigments into the engravings. But then it is attracted by fungus and other microbes and thus deterioration of manuscripts is accelerated. In our visit to the different repositories we have observed how-to the dried leaves of the manuscripts due to the deleterious effect of the adhesive properties of the oil with that of dust and dirt, the manuscripts are stacked with each other, almost inseparable, unless detached using certain techniques and volatile chemicals on its surface. Even infestation of fungus along with that of the castor oil, cause stains of various hues upon the folios and leaves deteriorated further as stated above. If not taken care of, then the bundles of palm leaf manuscripts are turned into a heap of powder in a very short time. With the infestation by

other agents like insects or pests like cockroaches, rats, silverfish etc then the manuscripts become more prone to damage and destruction. However, all those traditional methods are not bad; rather there are many indigenous techniques that are more scientific compared to modern laboratory practices employed in museums. Only those traditional techniques causing negative impact upon the conservation status of palm leaf manuscripts are to be abandoned in support of the new, modern and scientific methodology which has been tested and tried since decades in various laboratories, especially by National Mission for Manuscripts (NMM) under the aegis of Ministry of Culture, Government of India, and New Delhi. Even NMM has undertaken some research projects through the joint collaboration with various reputed Government agencies like National Research Laboratory for Conservation of Cultural Properties, Lucknow and National Museum, New Delhi on how to strengthen modern as well as indigenous and traditional techniques as both have relevance in today's world. There are good numbers of indigenous practices that are still useful for the longevity of the manuscripts. Examples being application of neem, turmeric, cumin, cloves, pepper, cinnamon and camphor which are used as an insect-repellent. The use of snake slough, peacock feather, citronella oil, dried tobacco leaves, *seetaphal*, *karanj*, cedar wood, garlic, ajwain, sandal wood etc are still in vogue in different parts of India and other parts of the globe and even yielding positive result upon palm leaf manuscripts acting as insect repellent. But research in this indigenous field is still in process of achieving the desired objective. Thus, as gap filler, we may approach the modern techniques and technology in the field of conservation of manuscripts where-ever it is possible both in museums as well as in private repositories as prescribed by National Mission for Manuscripts and being presented here briefly.

Methods and Techniques of Scientific conservation

Conservation means a scientific method or techniques adopted to restore and enhance the cultural and aesthetic value of an art object which may vary from simple repair or maintenance to that of highly complicated technical job. As defined, Conservation is any action on a damaged or undamaged manuscript aimed at enhancing the longevity of the manuscript or for that matter any art

or antiquities.

There are two types of conservation processes as far as their practice and methodology are concerned and they are coined as i.e., **Preventive and curative conservation** as defined by National Mission for Manuscripts in its Guidelines.

Each of these conservation processes described here may or may not be applicable to the palm leaf manuscripts of the repositories. It depends upon the conservation status of the palm leaves and the extent of the damage occurred there.

Both of the techniques have their own methods and relevance for the purpose of preserving the antiquities. To know how the techniques and technology of both processes are different but working in tandem with each other, we have to go by the following discussion.

Preventive Conservation

If, the conservation procedure aimed at increasing the longevity of the manuscript is executed through an indirect action, then it is called as Preventive Conservation. The preventive conservation of palm leaf manuscripts is there since ages as it is employed by the people in traditional manner. However new age researches and techniques did help a lot in augmenting this process of preventive conservation; some of the examples of which may be given as follows.

Prevention is better than cure. Hence preventive conservation processes are basically the precautionary measures and may be applied to the repository of palm leaf manuscripts by regular inspection of repositories by trained professionals. The most important step in preventive conservation is to control the factors of deteriorations like humidity, temperature and moisture content of the repositories as well as the adjoining areas. Effective mechanism to maintain the desired relative humidity (RH) of the room would be that of around 55% with that of the temperature around 22 degree to 24 degree centigrade and the holdings of the manuscripts be illuminated in proper manner. It could be done by providing cross-ventilation to the room and hygrometer be installed to measure the RH content at regular basis so that it will be easy to check the process of deterioration before it starts in the manuscripts. Steps must be taken to avoid the

salt-laden winds in coastal areas so that it wouldn't affect the antiquities as salt content of the air will have negative impact upon leaf surfaces. Dusting of the objects should be practiced at regular intervals including that of using chemicals for repelling insects and other microbes from manuscripts.

Another important measure is to avoid mishandling of the palm leaf manuscripts. Most often they are placed one above the other. Thus, the upper one would exert pressure and its weight upon the manuscripts on lower stratum causing its physical wear and tear if the covers of the bundles are weak and having low tensile strength. During movement of the manuscripts from one place to other, though inside the premises of the museums, they should be held by hand from its middle not from the edges or wooden trays is used. If a large number of manuscripts are required to be shifted from store or gallery to conservation laboratories then trolley be used with proper care like cushion and support system.

In the preventive conservation the fumigation plays an important role as killing or repelling the microbes is the best possible solution. These bundles should be fumigated with fungicides and insecticides for preventing the attack of insects and fungus. These palm leaf manuscripts should be made unbound inside fumigation chamber, so that the fumes emanated from the fumigants penetrate the whole surface of the folios. Hence repositories or museums must have a fumigation chamber on its own.

Another moot point is whether we should use the Air Conditioner (AC) or not. It is well settled principle that if AC is present, then it should be maintained thorough out the day and night without any interruption. If we are unable to maintain it then it is better to abandon the AC as intermittent interruption of the same would cause a huge temperature gap causing more contraction and expansion of the folios which are organic in nature. Then it causes more destruction of the organic materials like palm leaves. Traditional fungicides and herbicides could be used having no harmful impact upon objects. The materials like naphthalene crystals or anything like these repellants are useful in the preventive conservation.

Manuscripts shouldn't be piled up as a mound; rather placed in the racks in such a manner that it would seem to be displayed to the curator of the

holdings from a distance and any insect or pest attack can be noticed easily without any effort. The binding of the folios of the manuscripts should be neatly done in symmetrical and in tight manner so that the thread would exert equal pressure all along the surface of the strong cover board that helps protecting the bundles. This binding of the manuscripts by thread in the middle part of leaf is also an art as well as a technique as the thickness of the thread shouldn't be of more thickness compared to that of the central hole of the bundle.

Minimum use of chemicals is always desirable as an ethics of conservation and minimum interference also gives maximum result. Whatever chemicals be used, it should be reversible in nature and be documented properly so that the next course of action can be visualized by the restorers in the event of being further damaged by any agents.

Wooden storage, sometimes used, may have negative impact as some of them may give off acidic vapors, hence be given coats of emulsion paint on the surface of the wooden storage. So, all these precautionary or the preventive methods are useful for maintaining the safety and longevity of the manuscripts and those methods mentioned here are not exhaustive, but more and more scientific methods can be executed in a measured manner according to the climatic and other conditions of the region.

If the custodians of palm leaf manuscripts fail to go for modern techniques then, they may treat the manuscripts using indigenous practices like applying neem, turmeric, black cumin etc, but maintaining due norms and procedures and that too by the certified and skilful conservators.

Curative Conservation

Any direct action aimed at increasing the longevity of the palm leaf manuscripts is called as curative conservation. It is a direct treatment procedure where-in the manuscripts are subjected to different steps like that of documentation, fumigation, solvent cleaning, tissue lining, integration and retouching etc. During curative conservation, the damaged folios are treated just like a patient in hospitals or clinics as each and every folio are?

As the name suggests, in the curative conservation the manuscripts are subjected to direct treatment with the procedures that should have be step by step

though a trained conservator has the option to omit, repeat or act innovatively observing the present status of the damaged folios.

(a) Documentation:

Documentation is the initial step to conserve any document what-so-ever. In case of palm leaf manuscripts, it has its own relevance as one can see the difference before and the treatment. And it can be used as a legal document as these cultural properties belong to the state and society and we have no right or authority to disfigure or do maltreatment so that it would be more damaged if we approach the faulty conservation processes. There are different types of documentations like Photographic, Graphic, Digital, or Textual documentation. Through the documentation we can record the importance of manuscripts, their dimension, deterioration and damage in a brief but scientific manner for the purpose as mentioned above and can be keep as authenticity of our methodology.

Not only that, the documentation would help knowing and understanding the procedures employed in conservation so that in future it would be easy for the restorers to apply suitable techniques or chemicals for preservation of the same. Hence, we must keep at least a photographic or textual record or anything like that using modern techniques to keep a record of the same. Nowadays the digital documentation using scanner and computer device are handy to do the same for both before and after the conservation to maintain the sanctity of the conservation.

(b) Fumigation:

Though a preventive mechanism, it is also employed in the curative conservation processes before going on for any curative measures. As described above suitable insecticides like paradichlorobenzene, carbon tetrachloride, trichloroethane and fungicides like thymol are used and choice depends upon their efficacies (Harinarayana, 1995). These chemicals are kept in an airtight fumigation chamber with perforated shelves and glass doors to be fitted with an electric bulb at the bottom of the chamber. When connected to electric circuit this electric bulb would have heating effect upon the surfaces of the chamber and vapors would emanate and deeply penetrate into the folios of the manuscripts. These palm leaf manuscripts in the fumigation chamber are generally

kept unbound so that fumigants would penetrate into loose folios throughout its surfaces. The duration of fumigation depends upon the deteriorations and conditions of the manuscripts. Normally there is no harm if these palm leaf bundles are loosely bound and kept inside the chamber. Its duration could be for a week or so as within this period the manuscripts would be sufficiently exposed to the insecticides and fungicides. When in fumigation chamber, if paradichlorobenzene is used as an insecticide then its fumes being heavier than air is kept in the uppermost shelf of the fumigation chamber with a concentration of 1.5 kg per cubic meter. A mixture of carbon disulphide and carbon tetra-chloride (1:3) has also been found effective against insects (Gupta, 2010).

© Un-Stacking of Folios:

In most of the repositories if manuscripts are not used for study or other purposes for longer duration and kept as such in the almirah or shelf, then these folios of manuscripts are stacked with each other as mentioned above in the preventive chapter. There are various reasons attributed to this stacking of folios. But the main reason is moisture due to humid conditions, or dampening in rain water or so accompanied with dust and dirt. Then we can apply organic solvents like glycerin through syringes inside the stacked bundles carefully with skill and patience. These syringe methods are executed only when folios are almost inseparable with gentle use of force or by application of the volatile organic solvents. Also, hot water bath containing solvents can be useful. Even depending upon climatic condition, the palm leaves could be exposed to steam for moistening and loosening so that the stacked folios would be separated out manually using scalpel or needle and then we can dry them up in proper condition. While doing this, sufficient attention is to be given for the solubility of inks or pigments. If pigments which are adhered to the engravings of the folio are soluble then it would stain it and make the manuscript ugly one. Stacking of folios also make it difficult for reading or deciphering the content as stain cause discoloration. So, before applying any chemicals the solubility test must be done and if inks are soluble, then certain other organic compounds may be used. This solubility test has more relevance if the repositories have illustrated palm leaf manuscripts depicting beautiful paintings with

organic pigments. In that case it is advised to use proper protective coat before initiation of treatment. All these procedures should be done carefully under the supervision of an experienced trained professional. It is to be borne in mind that careful measure should be duly followed up as we are dealing with manuscripts of hundreds of years old. All these fragile manuscripts are prone to be destroyed if curators or conservator fail to imbibe the patience and dedication.

(d) Dry Cleaning

In the conservation process we always give importance to dry cleaning as ethics of conservation demands for minimum interference and that too minimum use of synthetic chemicals. Chemicals are nothing but a foreign agent for a natural object like palm leaf manuscript. Sometimes chemical residues after its application on the folios may have some negative impact upon its surface and cause damage on its epidermal layers. It is also seen that in many cases the surface accretions on the folios due to dust and dirt could be removed by using soft brush. These dust and dirt are real danger as it damages to the surfaces when accompanied with moisture of the atmosphere. In tropical hot and humid climate and coastal region, especially in Odisha, the moisture with that of dust and dirt become a good platform for microbes like fungus to grow and sustain. The fungus thrives upon the palm leaf as its organic substrate without any hindrance. Thus, dry cleaning has a major role to play as it would cleanse the surface so that further damage would be stopped at the initial stage. Therefore, conservators always give importance to the dusting and cleaning of the manuscripts. Even in most of the archival institutions without any conservation laboratory, if they go for dry cleaning of the objects regularly then it wouldn't damage the cultural properties easily unless intervened with factors of deteriorations. This dry cleaning with soft brushes should be done in such a way that the strokes of the brush should be parallel to the venation system of the palm leaf and be done from centre of the folios to the outwardly manner. Carelessness in doing so would destroy the already damaged fibers of the leaves. Even it may break the folios at different points of the surface.

(e) Solvent Cleaning

If the dry cleaning with soft brushes does not yield

any good result then suitable volatile organic solvent, say, diluted ethyl alcohol having varied concentrations along with the insecticides may be used to clean the surface of the folios. The dilution of the alcohol depends upon the status of the manuscripts as well as the atmospheric humidity which fluctuates seasonally and diurnally due to close proximity with the sea coast. Before use, the volatility of the organic compounds should be checked first as it differs case to case. Other organic compounds may be used are trichloroethane, carbon tetrachloride, toluene, benzene, petroleum ether etc.

(f) Loss of essential oil

Most of the time we observe the hardening of the palm leaves due to loss of essential oil of the folios. With the passage of time, the leaves become brittle and fragile. So, to regain the flexibility in the dried leaves some of the chemicals or organic products like camphor oil, citronella oil, glycerine, lemon grass oil, clove oil etc can be used in aqueous medium while combining alcohols in different proportions. This would impart not only flexibility but strength to the embrittled leaves.

(g) Tissue filling

This technique is applied when the epidermal layer of the palm leaves is destroyed by the insects and the insect holes appear on the surface. The pests make tunnels while deriving food from the organic substances of the palm leaf manuscripts. As narrated in the chapter of bio-chemical composition, the palm leaf is composed of carbohydrates like celluloses, hemicelluloses and fats along with other organic compounds, thus become a substrate for the biotic agents. So, the loss of tissue layers of the leaves, if can't be compensated by filling the holes with suitable materials with similar nature, then it will lead to further deterioration and weaken the leaves. Therefore, the pulp of tissue paper dissolved by carboxy methyl cellulose is added with an insecticide like sodium fluoride and filled in the holes of the palm leaves to consolidate the lost part of tissue. By this consolidation, the brittle and weakened palm leaves are strengthened. Also, sodium salts will have least effect upon the folios. By this tissue filling techniques palm leaf gets restored to its original forms.

(h) Integration

Sometimes the edges of the folios or even

substantial parts of the palm leaf manuscripts are broken or lost either due to insect or fungal attack or due to stacking of folios or improper storage. In that case in a bundle or manuscript, some folios are there without any edges or parts thereof, which exert unequal pressure upon the whole surface of the folios. Due to this unequal pressure, the adjacent folios bend and continual bending of folios for a prolonged period may cause wear and tear of leaves. Then it loses its suppleness and becomes brittle. So, to eradicate this problem, a restorer compensates the lost part of the folios by adjoining it with other fragmented pieces of leaf with similar thickness, width, colour, texture, and length in such a way that the cultural aesthetics wouldn't be lost. This process is called as integration of folios. To integrate the folios, the poly vinyl acetate can be used to glue the fragmented pieces with the help of a spatula and later on the treated folio would be subjected to mechanical pressure so that it wouldn't bend rather be straightened under, if possible, a transparent glass surface. Integration is a tedious process and can be done by any experts and that too upon important palm leaf manuscripts.

(i) Lamination

Lamination treatment is given to the manuscripts which are having deterioration to such an extent that it is irreparable in normal processes of restoration. This method is called solvent Lamination as transparent tissue paper is sandwiched by a cellulose acetate foil by the help of organic solvent like acetone. When solvent is applied with a cotton swab the cellulose acetate foil becomes semi plastic and the tissue paper is cemented with the palm leaves with bonds. Thus, the weakened leaf folios would be strengthened. But one must make a solubility test before using acetone as insoluble writings will have no problem. This is very important in case of illustrated manuscripts as in this case the colours or pigments are used.

(j) Re-inking:

As palm leaves are very old and its legibility is lost due to loss of carbon pigments, hence re-inking can be done to give the engravings into a readable form. In Odisha we have *Tala leaves* which are basically engraved by stylus upon the surface of the leaves. The carbon black pigment can be prepared using lamp with oil. Then the prepared carbon black is mixed with glue and rubbed with the incision with a

soft cotton cloth. By this method the engravings of the palm leaves are again filled with the black pigments and make it readable. Now the writings or the engravings can be read properly with ease and convenience. The excess of lamp black is removed with the soft cloth and may be by solvents like ethanol so that the extraneous substances or colours will be wiped off the surface of the palm leaves. By re-inking the palm leaf manuscripts get new life and form as scholars can read it easily.

(k)Retouching:

Retouching is just another process by means of which the restorer or conservator applies various water colours to repaired folios which are subjected to the process of integration with another new folios. As the new folio cannot match from aesthetic point of view the restorer gives some shades of colour to the newly attached part of the folio so that it gives good sensation to eye. Retouching is not an integral process of conservation. It may or may not be executed. It gives the good optic only to the on lookers; hence employed as an art upon art objects like palm leaf manuscripts.

After performing all these processes, we must put these manuscripts into a fumigation chamber again for certain duration depending upon the prevalent conditions so that if microbes generated or left during conservation treatment over its surface, then it would be subjected to die. The chemical vapors that emanates due to impact of insecticides and fungicides used in the fumigation chamber must penetrate into the whole parts of the manuscripts.

Conclusion:

We employ both preventive as well as curative practice of conservation of the palm leaf manuscripts all over world; hence in India as a normal tested and tried procedure and some of the techniques or procedures may be different as per their necessity and availability of conservation materials or techniques, but broad parameters are more or less same. So, all these processes or techniques employed in India or Odisha may not be done or feasible at all circumstances as it involves money, time and energy with trained human resources. The curative conservation process is a dynamic action upon the art objects or manuscripts

depending upon the nature and extent of the damage. This damage may be inflicted upon by the natural or biological attack or even human apathy including that of vandalism. These methods may or may not be used for all purposes, but it serves as a Standard Operating Procedure (Sop) in restoring, conserving and preserving the palm leaf manuscripts in Odisha and India as standardized by National Mission for Manuscripts and other agencies engaged in the field of conservation of palm leaf manuscripts. More and more research activities should be carried out all over India to find out the cost effective, easy and simple solution for the preservation of our documentary heritage like palm-leaf manuscripts which are unique and this rich, prosperous, and beautiful material heritage must be preserved for posterity.

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Book Review

Satapathy, K. C. 2010. REFUGEES' HEALTH: A Bioanthropological Study on Emerging Health Problem of Tibetans in India. Athena Books, Bhubaneswar-2, pp288 ISBN: 13978-81-89593-28-5, Price: 250/-.

The book under review is a welcome contribution to the study of refugees' health status in India. First of all, the author of the book, with his training in anthropology and rich experience about Indian population in varied situations, presented a holistic understanding on migrant population settled in Odisha. In this work, Kanhu Charan Satapathy endeavors to ascertain the health status of Tibens settled in Chandragiri, Gajapati District of Odisha. Following Chinese aggression approximately one lakh Tibetans came to India, Nepal and Bhutan as refugees in 1959 and were settled in thirty five settlements in different States of India. The Phuntsokling Tibetan Settlement area, Chandragiri set up in 1963 consists of sixteen villages is very unique and ecologically it is quite different from their mother land Tibet.

The author made a detail account of the path of their journey and difficulties they encountered in Odisha at the time of initial stage as well as now. This is a good step and initiative taken by the author and document the coping strategies adopted by the people in an alien environment which is culturally and disease ecology wise completely different from Tibet.

This book contains six chapters and has an in depth analysis of bio-cultural determinants of health and health care knowledge system of migrants from a regional perspective. The book deals with the culture, ecology, demography, anthropometry, nutrition, hematology, physiology and mental health issues of Tibetans settled in Odisha. In the methodology section the author laid emphasis on all

possible of tools and technique utilized for gathering first hand information as well as resources from hospital to address the issue of emerging health problem of Tibetans living in a coastal environment.

The demographic information provides a detailed account of their distribution as well as how they are shaped and possible challenges they encounter in future. Similarly the physiological changes, the issue of physical growth and development, nutritional challenges and endemic malaria disease have been explained by the author clearly. However, the author tries to present a kaleidoscopic view on the premise what happens when people move from high altitude and settled in a coastal environment. The Tibetans in Odisha are not only suffering from identity crisis but also their refugee status; citizenshiplessness and their desire to return to Tibet soon are major obstacles in their overall development. Though the Tibetan show demographic transition, but there is a significant improvement in terms of demographic and socioeconomic indicators among them. They are maintaining their culture in Odisha. In terms of physical growth and development the study reveals that they exhibit a higher value for body mass index, conicity index etc. Studies on physiological parameters show reduction in haemoglobin, hematocrit and lungs volume because of new environment.

On the whole the book would be helpful to health research in general and to know health status of displaced population health in particular. The price of the book may not be difficult for the students to purchase as it is available in paperback edition to meet the felt need of the student community at large.

Subhendu Acharya, Scientist 'C',

RMRC, ICMR, Bhubaneswar, Odisha

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