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FOREWORD

We very much regret the delay in the publication of Adivasi. Due to a number of difficulties all the four issues of the year 1970-71 have been brought out in the present volume.

The opinions expressed in the articles are the individual opinions of the authors concerned and do not necessarily reflect the views of the editors or the Government.

Editor

Tribal Economy

P. R. CHANDRA

The State of Orissa ranks second among all the States in India in having a total tribal population as high as 4,223,757. It also ranks first in having the largest number of tribal communities. The tribal population constitutes 24.07 of the total population of Orissa. This significant bulk of tribal population in Orissa remained far outside the periphery of modern civilisation during the British administration as a result of the policy of 'isolation'. With the emergence of Independent India and adoption of Indian constitution, planning for the upliftment of these backward people and integration of the tribal population with the nation as a whole was felt indispensable.

The present paper, deals in brief with certain aspects of the economy of the tribes of Orissa.

Characteristics of Tribal Economy

Although the general principles of production, distribution, consumption and exchange hold good in all societies there are certain distinguishing features of the tribal societies with regard to them. Firstly, economic co-operation is one of the most important factors of tribal economy found at clan,

village and intra village levels. The traditional customs ensure no one to ever go hungry in face of plenty. There is mutual co-operation in the economic pursuits from production to consumption.

The second characteristic is lack of specialisation in the production of goods except that based on the principle of division of labour by sex. A tribal almost produces everything he needs for his day to day needs. The technology is primitive and all his needs are relatively simple.

Thirdly, the tribal economy lacked money as medium of exchange. They had usually the barter system of exchange. This has however, been replaced by money economy in most of the areas. The markets in tribal areas are attended for more than one reasons—most important of them being the social gathering of relations from all corners.

These are some of the broad characteristics and a detailed study on the economy of a particular tribal community will reveal as to how the economic activities have a social bearing and cannot be understood in terms of the principles of economics only.

With a background of the characteristics of tribal economy in general the economic condition of the tribes of Orissa is given in brief in this paper.

Land

It has been observed that the tribal people are bound to their land by many and intimate ties. Their feeling for it is something more than mere possessiveness. It is connected with their cultural heritage for their legends tell of the great journeys they made over the wild and lonely hills and of the heroic pioneers who made the first clearing in the forest. It is part of their reverence for the dead, whose spirits still haunt the countrysides.

In dealing with the economic resources of the community, land occupies a place of importance with that of man-power. On the social side, the structure of power and prestige has been based on the ownership and use of land. Whether in respect of share capital or in respect of contribution to total output, land occupies a key position in tribal economy.

During a survey in plain and hill Didayi villages an attempt was made to collect information about the size of land holding of the tribal folk. It seems that as many as 21.6 per cent of the total households are landless. Number of households having bigger size of land holdings is small.

The average land per family comes to 3 acres. The occupational structure of the Saoras in and

around Chandragiri is mostly agriculture. About 60 per cent of the population of the said area are agriculturists. The average land per family is 2.22 acres. Out of the 225 Saora households in the affected villages, 20 households (9 per cent) are landless.

Agriculture is the main source of income of the tribal people in the traditional villages. But the land holdings of the area show that the tribal people have a meagre possession of land which are again unproductive. Hence they take resort to other sources of livelihood such as collection, shifting cultivation, etc.

It has been pointed out in the report of the Commissioner for Scheduled Castes and Scheduled Tribes that there are three sources from which land can be made available to the large number of landless agricultural labourers. The sources are firstly, the cultivable waste and other land belonging to state; secondly, the land released through the imposition of ceiling on land holdings; and thirdly the lands received through Bhoodan and Gramdan Movements.

Collection—

Collection of forest products like fruits, roots, tubers is one of the major supplementary sources of livelihood among most of the tribes of Orissa. People participate in collection irrespective of age and sex. The people generally go in group for collection. An intimate knowledge of the surrounding flora and its utilisation is a basic trait of tribal economy.

The implements used for collection are digging stick, scythe, axe, rope, baskets, etc. Digging stick is an indispensable tool used in digging up underground roots and tubers. Its working end is pointed and the butt-end is blunt. The scythe consists cylindrical wooden handle and an semilunar iron blade the edge of which serrate. The blade is ordinarily 8" to 8½" long and 1" broad. Axe is used for felling trees. It consists of two parts, i. e. wooden handle, cylindrical in shape and the iron blade.

The following is a list of articles usually collected:—

1. For food and drink—The wild tubers locally available (like Nasia Kanda, Geyere Kanda, Bhata Kanda) bamboo shoots, fungus ((Chattu), Rai Kangu (a kind of fruit), Kendu (a kind of wild fruit), Dumuri (a kind of wild fruit), Date Palm (Khajuri), Jamu (a kind of fruit) Tamarind, Siali fruit (a kind of wild fruit), Arrow-root, Honey, Mohua flowers (a kind of wild flower), various types of green leaves, etc.

2. For extracting oil—Karanja (a kind of wild tree), Lankajoda (a kind of wild tree), Jada (Castor), Garha (Mohua fruit) are some of the trees that provide oil abundantly.

3. As household articles—Khajuri (wild date palm) leaves, Bamboo for mat, Siali (Sal leaves) for leaf cups, Sapaka (a kind of grass) for broom stick, Suma and Siali fibre for rope, Bamboo for basket and Jhuna extracted from Sala tree.

4. For house construction—Bamboo, Timber, Sala (a kind of

tree) for thatching and fibres for rope.

5. Others—Materials for wooden implements are collected during any part of the year according to necessity. Firewood is generally collected during summer seasons and stored for the winter and rainy seasons. Medicine herbs are collected whenever needed.

Among these products Mohua Flower, Mango, Tamarind, young bamboo shoots, bamboo, wild grasses for broomsticks and thatching Mohua and Karanja seeds for extracting oil, fibres and grass for rope are abundantly collected. Mohua Flower is collected for extracting alcoholic drinks, for food and also for cash by sale. They also collected arrowroot, Honey, and Jhuna which fetch them enough cash. Besides they collect leaves for making plates, cups and baskets. These leaf baskets of various sizes are used in storing grain and seeds.

SHIFTING CULTIVATION

The variety of soils of climates and of cultivation are responsible for variation in agricultural practices. The shifting cultivation as opposed to settled cultivation as a major productive technique is prevalent among many primitive tribes at present. This is regarded as the oldest method of agriculture from time man learnt the use of land and fire. Shifting cultivation is the main system of tribal agriculture. Primarily the tribes were primitive foodgatherers collecting fruits, roots and tubers from jungle to keep their body and soul together. The agriculture they were practising was very crude and

primitive in nature. Generally they started to till the soil with digging stick and hoe with iron blade. Here it would be proper to describe the methods of shifting cultivation which is widely practised by some of the important tribes of Orissa.

In Orissa, shifting cultivation is the major problem. About 10 lakhs Scheduled Tribes people practise Podu cultivation affecting an area of about 12,770 square miles. Due to heavy pressure on land the tribal people in Orissa do not find it possible to give a long gap for rotation shifting cultivation and in most parts of the state this cycle is short, being 4 or 5 years. Several methods have been advocated to control shifting cultivation. The methods of shifting cultivation which are practised by the Kotia Kondhs, one of the primitive tribes, are described below.

The shifting cultivation of the Kotia Kondhs is called 'Podu, (Dongar Cultivation). After a patch is cultivated for one or two years it is kept fallow for two three years. The land is distributed to individual family heads by the village headman.

Generally, the Kotia Kondhs fell the trees in a forest patch. First of all they clear the bushy growths and weeds. The work is done both by men and women and even by children. It takes two or three days to remove the grass. The second stage in the clearing process begins when smaller trees and branches of bigger trees are lopped off. Women and children assist men in this work too. The hardest part of the clearing work is to cut down the heavy trunks. When the small branches and tree trunks are

allowed to dry up in the heat of the sun, the men and women work together in burning the trees which take about two weeks or more depending upon the size of the plots. Then the rains help in spreading the ashes all over the field.

They do not allot separate plots for different crops, but sow a variety of grains in one plot. They dibble the seeds of beans on the heaps of ashes around the standing dried trees. 'Castor', 'Jhudang', 'Kandula' and 'Kating' are sown after performing minor rituals in the field. Men, women and children take part in doing work in the field. Except these crops, a variety of cereals are also sown over the field.

Of all the phases of shifting cultivation, felling trees and other physical labour in the plots are the longest and the toughest agricultural processes.

In Orissa, the hill tribes are the Bhuyan, the Juangs, Santals, Saoras, and Koyas who practise shifting cultivation. Maximum economic co-operation, a characteristic feature of tribal economy, is thus found in the process of shifting cultivation which is the original mode of cultivation of the primitive tribes.

Income and Expenditure

Agriculture is the mainstay of the tribals and their economic activities centre around it. But agriculture as we know, is exposed to the vagaries of nature. Drought, caused by irregularity of rainfall affects their agricultural yield, while collection of forest products is irregular and also seasonal.

Thus their income is determined by natural conditions and seasonal variations. Social and religious expenses have significant place in the pattern of expenditure among the tribes of Orissa.

They are an essential part of their social fabric. Social ceremonies make their life worth living and the performances of rituals give them confidence and courage

to face the hazards of forest life. Therefore the amount of expenditure to be incurred on them is generally not fixed. It varies according to the capacity of the family and the crop condition in a particular year.

The following table shows the average annual income and expenditure per family of some important tribes of Orissa.

Sl. No.	Name of the Tribe	Average annual income per family	Average annual Expenditure per family
(1)	(2)	(4)	(5)
		Rs. P.	Rs. P.
1	Saora	727.00	742.67
2	Kondh (Chandrapur area)	823.43	851.10
3	Santal (Bisoï area)	1,021.86	1,055.86

Thus when we compare the average annual income per family with that of average annual expenditure per family, it is evident that they live with a deficit economy which leads to indebtedness.

Indebtedness

One of the worst forms of exploitation to which the tribal people have been and are still exposed is indebtedness. The size of the problem is enormous. It has various aspects—psychological, social and economic. It is difficult to estimate the psychological burden; for some at least, all happiness and peace of mind is lost, while others so burdened seem to sink into a dull and hopeless apathy. Often the debt descends from father to son and even to the third

generation. Generally speaking the tribals appear to accept indebtedness as a normal, almost inescapable aspect of their existence. On the social side, the custom of marriage, death, and hospitality are deeply ingrained in their culture. It is true that these customs provide occasions for the tribals to escape from the dull routine of village life, but on the economic side, they rely entirely upon the moneylender for the settlement of his dues. His faith and trust in him is quite astonishing. One reason is that the moneylender gives easy credit when it is needed most. He has no idea of defending himself in a court of law nor in distrusting the moneylender's word. The cumulative result of this three sided oppression is crushing. It is in this context

that we proceed to consider this tragic and all pervasive problem.

The following table shows that out of 398 surveyed families

belonging to 9 different tribes, 228 families are indebted and their percentage comes to as high as 39 per cent of the total number of families surveyed.

Sl. No.	Name of the Tribe	Total No. of family surveyed	Total No. of indebted family	Debt per indebted family	Debt per family
(1)	(2)	(3)	(4)	(5)	(6)
1	Kondh ..	115	58	63.05	31.80
2	Saora ..	34	22	92.77	60.03
3	Bonda ..	81	35	21.89	9.46
4	Munda ..	4	3	53.33	40.00
5	Kisan ..	6	6	24.33	24.33
6	Juang ..	41	28	53.43	36.46
7	Sudha Sabar ..	40	31	90.19	69.90
8	Bhuyan ..	77	45	179.73	205.04

Among the tribes the average debt per family is Rs. 48.12 and average debt per indebted family is Rs. 83.99. This is an overall picture. The maximum and the minimum debt per family and *per* indebted family is seen in case of Bhuiyans and Bonda, respectively. The debt per family ranges from Rs. 9.46 to Rs. 105.04 and the debt per indebted family the range is from Rs. 21.89 to Rs. 179.73. So there is a marked difference among different tribals.

The purpose for which tribals incurred debt is for family expenses which comes to 69.13 per cent as against 8.89 per cent of the debt for social ceremonies. It is interesting to note that for Saoras and Kondhs the expenditure on this account is only 33.27 per cent and 49.39 per cent but for Munda, Kisan,

Konda, Bhuiyans Juang and Sudha Sabar, it is 100 per cent, 100 per cent, 38.66 per cent, 85 per cent, 72.93 per cent and 62.98 per cent respectively.

It has been seen that 64.37 per cent of the total debt is taken from non-tribal and local tribal money lenders, 3.24 per cent from friends and relatives, 32.39 per cent from co-operative societies as against only 6.67 per cent of the loan are taken from Government sources.

Lack of Marketing Facilities

By its very nature the tribal economy of Orissa affords restricted scope for market transactions. The basic needs of tribal people are few in number and strictly limited in variety. Grain, wildroots, salt and a strip of cloth and

country liquor meet his consumption budget. Even for these limited wants, the tribals are not required to resort to exchange except for salt, cloth and liquor. The limited use of money as the medium of exchange, automatically confines exchange activities to barter of goods. Thus tribal economy moves round foodgrains-keeping exchange transactions to the minimum. Most of the tribal areas of Orissa are situated in inaccessible places, which involve not only heavy transport charges, but also great risk and inconvenience to an outsider.

Due to the lack of marketing facilities, the travelling pedlars have also contributed to the growth of indebtedness among the tribals. They pursue the villagers every now and then, particularly at harvest and at last succeed in recovering the amount of interest accumulated at the end of the year.

Measures adopted by the Government of Orissa.

Thus to improve the economic condition of the tribals and to save them from the exploitation of petty traders, purchase Sale and Fair Price Scheme, (P.S.F.S. Scheme) were introduced in various tribal tracts of Orissa.

The objectives of the scheme are:—

1. To save the tribal from the age old economic exploitation and this was intended to be achieved by granting them interest-free loans.
2. To arrange marketing for the commodities produced by them.

3. To make available articles of daily necessity to these people through P. S. & F. S. Scheme.
4. To improve horticulture on the hills.
5. To set up poultry and goat breeding centres on the hills.

Tribal Development Programme

It has seriously been felt by both the State Government and the Government at the centre to give special attention to improve the economic condition and the lot of those extremely backward tribes forming a population of 2½ lakhs in Orissa in the matter of agriculture, horticulture animal husbandry, reclaiming land in the vicinity of the tribal tracts, soil conservation, assisting the tribal families for taking up horticulture, animal husbandry and cottage industries for those who do not depend on agriculture, to provide good dwelling houses with facility for drinking water-supply, to open residential schools for the tribal children, to protect life and property from the attack of the wild beasts like elephants and tigers and to open purchase and sale schemes to save them from exploitation of the middlemen.

The Tribal Development programme included the various schemes like—(1). Rehabilitation of the most backward tribes—The Kotia Kondh Development Scheme. (2) Dongria Kondh Development Scheme, (3) Purchase Sale and Fair Price Shop Schemes in various units in different districts.

1. *Kotia Kondh Development Scheme*—Originally a tribal development programme, a programme for achieving the economic uplift of the most backward section among the tribals of Orissa who had so long lived isolated from the machinery of general development and been subject to the harrowing exploitation, was taken up for the first time in 1962—64. It began with the formulation of a scheme for settlement of some Podu cultivating Kutia Kondhs of whom nearly 60 families have been housed in two colonies, i.e., Nehru Ponga and Hakusponga in Koraput district under the Kutia Kondh Development Scheme.

(2) *Dongria Kondh Development Scheme*—The main object and scope of this scheme are for the development of the Kotia Kondh based on liquidation of their debts and mortgages, giving them interest-free loans, without sureties, to meet their requirements, making available to them all that they need to buy at reasonable rates from a Fair Price Shop and selling all goods to them on credit, purchasing from them their entire marketable surplus of all varieties of fruits, turmeric, castor and anything that they need to sell. The price of such commodities is adjusted against the money due from them to Government towards loans taken and articles purchased on credit and the balance of the amount is paid to them. Various other general measures for their uplift and development have also been introduced. Accordingly a Fair

Price Shop has been opened at Kurli, a village in Niyamgiri Hills for the Dongria Kondhs on 24th July 1964 where commodities needed for purchase by the Dongria Kondh are being sold to them at a reasonable price. Besides this the schemes aim at improving the gardening and horticulture in the Niyamgiri Hills, road communication, imparting of education, upgrading poultry and goat breeding, etc. Purchasing the oranges and pine apples has been taken over by the Fruit Crushing Unit of Agriculture Department at Chatikona.

3. *Purchase Sale and Fair Price Shop Scheme*—The object of the scheme is to protect the backward and primitive tribes like Kotia, Fengo, Saora, Paudi Bhuyan and the Juangs, etc., through provision of interest-free loans without surety and wiping out their indebtedness, purchase of their marketable surplus commodities at reasonable price through the purchase organisation and supply of their essential requirements at reasonable rates through the Fair Price Shops by providing facilities of credit and repayment in kind, from the ruthless exploitation by the Dombs or Panos, Kumuties and other unscrupulous money lenders who exercise considerable influence on those tribals not only as moneylenders but also through various social and religious contracts and obligations.

All these measures have gone a long way in solving the economic problems of the most primitive tribes of Orissa.

Role of Social Anthropologists Working in Tribal Research Institutes.

KULAMONI MOHAPATRA

Social Anthropologists are now working in large numbers in the Tribal Research Institute of various States. The strength of these Institutes has now gone up to nine. It is expected that during the fourth Five-Year Plan almost all the States of India would set up their own Institutes. Besides these, the Department of Social Welfare, Government of India, the Office of the Commissioner for Scheduled Tribes and Scheduled Castes, the Census of India and various other agencies also employ Social Anthropologists. In all these organisations the Anthropologists are expected to 'study' and 'solve' some problems assigned to them by their employers. What exactly they should 'study' and 'how' and to what extent they can 'solve' problems are points which are being debated since the inception of these institutes. There are some who doubt the capacity of the Anthropologists to tackle the Economic and Psychological aspects of human behaviour. They would like to employ specialists from other disciplines who would work in collaboration with the Anthropologists for an integrated study of human problems in general and tribal problems in particular. This creates a confusion regarding the role of the Anthropologists and their specific area of study. The Anthropologists themselves are sometimes

victims of this confusion and in their attempts to be eclectic they lose their scientific acumen. Like all demoralised scientists they can only parade sets of platitudes as a substitute for real solution of problems. By this they only earn the ridicule and contempt of the administrator giving upper hand to Routine Establishment. The role of the Anthropologists therefore requires continuous appraisal and re-appraisal.

Anthropology being the holistic science of man, can tackle all human problems but it does so within its specific field of operation. "We observe behaviour of man in the group, the behaviour of individuals towards each other and in respect of each other."*The forms of behaviour, then, with which we are primarily concerned are recurrent, regular, coherent and predictable. The subject matter of our enquiry is *standardised behaviour patterns*; their integrated totally is culture (Nadel, 1958, 30-31).

Anthropologists study the economic and political activities as well as psychological problems within the framework of standardised behaviour patterns as distinct from the aspect studies by other disciplines of social sciences such as

economics and political science. In doing this the Anthropologist employs his own methods of study, i.e., intensive study of small groups as wholes and employment of comparative analysis.

Now, the question is why the Anthropologist does so. It may be asked from another angle. How his method of study is more effective than others ?

An aspect study does not yield a realistic picture of a society and, what is more, it does not show the differences and variations which are inherent in the (apparently) similar formal structure. "x x complex societies in the modern world differ less in the formal organisation of their economic or legal or political systems than in the character of their supplementary inter-personal sets" (Wolf, 1966, 19). In the economic field the same type of formal structure may be found in a widely differing variety of societies. The capitalist structure of economy may be cited as an example which is prevalent in France, Germany, England, U. S. A. and Japan. In spite of the formal economic similarity among these countries, sharply contrasting behaviour patterns are found in all these countries, so much so that their co-existence within the framework of a single society is an impossibility. Again, the democratic political system, based on universal adult franchise and free functioning of political parties has produced contrasting, even diametrically opposite patterns of behaviour in different countries. Even the communist system, in spite of its ideological rigidity and international standardisation, far from levelling

down national differences has given impetus to it and divided the communist world into warring camps. Apart from these analogies of dominant world trends and the consequent national cultures, the differential behaviour of the groups or sub-societies within a national society throws the necessity of the microsmic comparative approach to a sharper relief. This is especially so in countries like India where the national superstructure is somewhat nebulous and the specific contours of the small communities are the working reality.

While standardized human behaviour is the concern of the Social Anthropologist he must categorise this behaviour properly in order to make a correct appraisal. This point needs emphasis, as a lopsided over-elaboration on one or other category vitiates the analysis by Social Anthropologists working in Tribal Research Institutes.

First of all the Social Anthropologist must handle his material in an action frame of reference. Here a clear distinction should be made between behaviour and action. "By behaviour we mean ~~mo-~~or events which simply happen in individuals (or organisations); by *action* such events if they are intended to have consequences, that is, to effect some change in the environment (human or material) of the actions or in relations between the two. Again action implies intention, plan, some direction or aim, while behaviour can be ~~un-~~intentional, involuntary and accidental" (Nadal, 1958, 30).

Categorization of action, in order to be meaningful should be universal but its specific tribal orientations

have also to be worked out. Keeping in view the proximate aims and end-results the categorization of action and their specific tribal orientation should be follows :—

- (a) *Purposive—r a t i o n a l action*—This is described as action “in which the end result is a means to a further end result” (Nadel, 1958, 31). For a practical Anthropologist, interested in developmental activities, this is the most hopeful sphere. This can be tapped both as an effective channel of communication and as an operational mechanism. Here our main test is not to express the purposive rational action in terms of any standardised jargon but to locate first of all the mode of inference prevailing in a particular tribe and types of activity which are relevant under this category. Social Anthropologists working as action-scientists should lay special emphasis on this category as it is the most neglected one and is popularly believed to be non-existent in the tribal society.
- (b) *Value Oriented Action* :—such action is characterised by the conformity of its end results to an approved code or an established value of the society. This category has somewhat been over-emphasized by the action scientists, treating all

action in tribal society as value-oriented. The sphere of value-oriented action in tribal societies should be properly located and contrasted against value-free action. In this category another important factor to be reckoned with is the dynamic nature of values in society, including tribal society.

- (c) *Affectually oriented action*—These pertain to such action as have a specific emotional state of the actor as its end result. This category is often confused with that of the value-oriented action but affectually-oriented action may be—(1) complementary to, (2) independent of and even (3) contradictory to value-oriented action. In a changing society the third alternative is the most probable.

Within the broad theoretical elaborated above the following topics of immediate interest should be tackled by the Social Anthropologists in the Tribal Research Institute :—

- (1) Co-operation and conflict in tribal societies, with specific reference to economic development and functioning of democratic political institutions.
- (2) Study of acievement-motivation among the youthful section of tribal population with specific reference to employment opportunities in specific areas.

- (3) Factors responsible for resistance to and acceptance of change.
- (4) Study of employment potentialities with reference to existing levels of skill and educational and technical attainments.
- (5) Study of channels of communication with reference to vocational guidance and implementation of scheme.
- (6) Analysis of social organisation with reference to generation differences and occupational mobility.
- (7) Study of leadership and decision making processes.
- (8) Traditional modes of investment and capital formation in specific areas and cultural factors for preservation and breaking of tradition in this respect.
- (9) Psychosomatic disorder due to tension of change.
- (10) Degree of sharing ascriptive national aspirations.
- (11) Concept formation and mode of inference within specific linguistic areas.
- (12) Study of traditional art and handicraft specifically with relation to marketing of local products.
- (13) Multiphase evaluation of economic projects such as housing, agricultural development, purchasesale programme etc.
- (14) Study of the impact of legislation and its implications for social relationship.

Lastly, the Social Anthropologist should be clear in his mind about his relationship with the administrator. "A wise Anthropologist will not try to tell an administrator what he ought to do; it is his special task to provide the scientifically collected and analysed knowledge that the administrator can use if he likes".

(Radcliff-Brown, 1960, 85)

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Mutha; The Traditional Political Organization of the Kondh (with Specific Reference to Pusungia Mutha in the Phulbani district of Orissa).

N. K. BEHURA
AND
B. N. SAHU

The Agency or Malua Kondhs of Phulbani district in Orissa had a systematic political organisation which is fast on the decline owing to the superimposition of the modern political institutions during the post-independent period. The traditional political organisation of the Malua Kondhs contained features, such as, effective group control, welfare of the group and a system of extra-group relations. Although the traditional political organisation was an institution to unite together a number of individuals of the tribe, who had originally settled over a contiguous area, called the Mutha (meaning control over the area and hence ownership right), for common interests; but at a later stage some non-tribals came to be associated with it having become residents of the Mutha. This association and involvement of the non-tribals in the traditional political organisation of the Kondhs has its own peculiar history. The direct association of the non-tribals in the Kondh tribal political organisation did not circumvent its smooth functioning because of the historical reason.

History of Mutha Organisation—

Prior to the British occupation of the Kondh area, that is before 1836,

the Kondhs were the subjects of the Raja of Ghumsar. The Raja lived at Ghumsar, which is situated in the plains area of Ganjam district, that is, on the eastern side of the Kondhmal. During the rule of the Raja of Ghumsar over the Kondh land, some non-tribals, mainly Hindu caste groups including some artisans and some Scheduled Castes too, had started penetrating into it (the exact time of migration could not be collected), which had been occupied until then only by the Kondhs. The higher caste groups established trade and commerce, including money-lending, in the Kondh area. They purchased various types of agricultural and forest products from the Kondhs and supplied them in return grocery, tobacco, narcotic, cloths and other articles. The artisans, such as, potters, carpenters and blacksmiths supplied their respective manufactured goods to the Kondhs. Where as, the third category of non-tribals, i.e., the Scheduled Castes such as the Pana and the Ghasi served the Kondhs as village sweepers and watchmen. The Kondhs did not resent the interpenetration of these non-tribals into their land as the latter rendered some service to them. And as these non-tribal outsiders gradually

settled down in the Kondh land they became well conversant with Kondh way of life as well as picked up Kui deftly, the dialect of the Kondh, so as to intimately converse with the latter and thus earn their confidence. After having fully established themselves among the Kondhs, some of them, especially the traders and money-lenders, acquired arable lands from the Kondhs. Despite this sort of intention of the migrants, the Kondhs treated them as their honourable guests. And in fact, they looked after the comforts of the migrants as if it was their obligation to do so. Further, it has been gathered that the Kondhs until very recent times cultivated the lands of their non-tribal neighbours and thatched or built their houses free of any charge. Not only that, the Kondhs, as a noble gesture did and still do offer to their non-tribal neighbours a portion of their kitchen garden produce as well as egg, fowl or meat whenever available. Besides, the village sweepers and watchmen are, more or less, fully maintained jointly by the villagers. And the migrants enjoyed a higher position amongst the Kondhs for their literary tradition and better financial conditions. Gradually members of the higher caste groups from among the immigrants were invited by the Kondhs to arbitrate in their domestic disputes and in their intra village and inter village disputes also. Consequently, these people acquired an important, intimate and somewhat indispensable position among the Kondhs, which, however, provided a basis for their subsequent involvement in the Kondh political organisation.

The Raja of Ghumsar and his officials did not understand the language of the Kondhs. As a result he found it difficult to rule them, and hence thought it necessary towards the beginning of Eighteenth Century to appoint some of the Oriyas who were living among the Kondhs as his local officials in the Kondh area. The Kondhs also welcomed this move since they themselves were unable to present their grievances to the Raja in Oriya, the latter's language. Furthermore, the new officials, with whom they were to deal with, were their neighbours and confides.

The Raja, for administrative convenience, divided the entire Kondhmal into several areas, each being called a Mutha. The basis of such division was clan or gochhi. This means that a Mutha contained Kondh population belonging to a single clan or gochhi or to several fraternal clans. Each Mutha included several adjacent villages within it, which must have been inhabited by members of a single clan or of several fraternal clans in those days; because of this the practice of Mutha exogamy is still prevalent.

The chiefs or heads of the Muthas were appointed from among the members of the Paik Caste (a quasi military and agricultural caste who mainly constituted the militia of the local rulers of southern Orissa during pre-British period), who claim themselves to be Kshyatriyas. The duty of the Mutha-head was to represent the Kondhs under his jurisdiction at the petty court of the Raja whenever called upon to do so, and to

attend on him there on all occasions on their behalf. And further, he acted as the recognized official intermediary and channel of communication between the Kondhs and the Raja. So concurrently he became the Raja's representative and the chief of the Kondhs. He performed an important sacerdotal duty for the Kondhs and consequently became the hub of their society. This was the state of affairs of the Kondhmal before the British occupation of the area.

In the year 1836, the Britishers penetrated into Kondhmal with the view to capturing the rebel Raja of Ghumsar, who had taken refuge in this jungle infested Agency tract. They conquered this area and brought it under their control. Consequently they took over the administration of the Kondhmal and instituted appropriate measures to stop human sacrifice which the Kondhs were carrying on in order to restore the lost fertility of the soil.

The Britishers did not disturb the Mutha-heads; instead, they tried to establish more effective control over the Kondhs through them. They allowed the old Mutha order to continue but reorganised it for better administrative efficiency. In recognition of the pre-existent Mutha-head as the hereditary local chief of his Mutha they (Britisher) vested with him powers of administering justice in conformity with the Kondh tradition in lieu of an annual payment of *Nazarana* or a lump gift and supply of *bethi* or free labour to the British Political Agent as and when

required. As a corollary to this, Mutha-head started levying regular annual *Mamul* or nominal gift in cash or kind from each Kondh family. Following this, the British administration created a few posts of assistants to the Mutha-head, viz. the Karjee or judicial clerk, the Bevari or the revenue clerk-cum-accountant and the Dandia or constables. All these posts were hereditary and some amount of arable land was attached to each of them in lieu of service. The Karjee was preferably a Brahman, the Bevari, a Karan (writer caste), and the Dandia, a Paik. Furthermore, the Mutha was divided into several Sub-Mutha, each comprised a few villages. Each Sub-Mutha, was kept under the direct supervision of a Kondh hereditary official known as Mutha-Mallick or Pattmajhi. And at the village level, in each village a Pradhan or Headman and a Chatia or Chawkidar were also appointed on hereditary basis from among the Kondhs and the Pana (a Scheduled Caste—drummers and basket-makers by profession) respectively. They were also allotted agricultural land for their service. All these Mutha, Sub-Mutha and village functionaries were answerable to the Mutha head.

Pushangia Mutha

The forefather of the present Mutha-head, Raghunath Patra, had migrated from Jorasingha in Kalahandi district, some thirteen generations ago, in search of better livelihood to Mahasinghi village, in the Pushangia Mutha of the Kondhmals. One Pojida Patra.

belonging to the ninth ascending generation of the Mutha-head family, was first appointed as the Mutha-head by the Raja of Ghumsar for his competency, cleaverness and capability in tackling and compromising an internecine dispute over the control of lands between two groups of Kondhs in Pushangia Mutha. The list of succession of the Mutha-heads, since Pojida Patra, the first Mutha-head, of the Pushangia Mutha is as follows. As a rule always the eldest son succeeded his father as Mutha-head"—

Pojida Patra

I

Damu Patra

I

Vondu Patra

I

Ghasi Patra

I

Luha Patra

I

Nara Patra

I

Gangadhar Patra

I

Landa Patra

I

Raghunath Patra (Present
Mutha-head.

by the term of fictitious kinship relationship he stands with regard to them.

The Pushangia Mutha comprises sixty-seven villages with its official headquarters at Pushangia village, where the Mutha-head resides. As has been mentioned earlier the incumbent of the Mutha consists, besides the Mutha-head, of Karjee, a Bevari and a Dandia. All these incumbencies are hereditary, and lands have been attached to each of them (As the entire Kondhmal has not been surveyed, the exact amount of land to each of the incumbencies could not be collected. However, it is sufficient to support a family of ten to twelve members. And the Mutha-head enjoys more and best available land in lieu of service. In view of the wide expansion of the areas and lack of communication facilities within, the Britishers divided the whole Mutha into five Sub-Mutha, viz., Digamilla, Nelipaka, Palmokia, Taprangia and Gadakabali. And to look after the immediate problems of law and orders of the Sub-Muthas, they created five posts of new officials called Mutha Mallick, and as an adroit move, on the recommendation of the Mutha-head, appointed five Kondhas to these new posts on hereditary basis. The Mutha Mallicks were required to report law and order incidents of their respective areas to the Mutha-head and to carry out his instructions. Moreover, in each village a Pradhan or Headman and Chhatia or Chawkidhar as the village level Mutha functionaries, were appointed from among the

The Kondhs refer to the Mutha-head as 'Patra' and address him

Kondhs and the Pana Caste respectively, the Mutha Mallicks were required to act as the liaison officers between the Mutha-head on the one hand and the village Headman on the other. The Mutha Mallicks carried out the instructions from the Mutha-head to their respective village Headmen for compliance. And likewise received reports from their village Headmen to be conveyed to the Mutha-head. Alike other incumbents of the Mutha administration, the posts of village Pradhan and Chawkidar were also hereditary; and some amount of agricultural land was attached to each of them. Thus, the Britishers turned the Mutha, the traditional political organisation of the Kondhs, during the course of their reorganisation, into a hierarchical authority structure.

Function of the various Incumbents

The Mouth-Head—As the chief of the Mutha, he looked after the general administration, ensured proper execution of civil agency works, and collected land revenue in cash or kind and *mamuls* through the Bevari. He maintained the customary laws of the Kondh tribe and also maintained order which ensured safety of life and security of property. He settled all sorts of disputes that were brought to him—domestic or otherwise. He heard the complaints and cases that were brought to his notice, and delivered judgment on them. He inflicted punishment and imposed fines on a miscreant or culprit, redressed the grievances of an aggrieved in consonance with the Kondh traditional rule.

In all types of cases, before the Mutha-head sits on judgment, both parties, the complainant and the respondent, are required to pay a deferential allowance in cash or kind called *Mahat* (meaning honour) to him as a mark of respect. Besides, a smaller portion of the fines collected from the accused is also appropriated by the Mutha-head and his assistants, and the rest goes to the aggrieved.

The Mutha-head formerly used to supervise personally the collection of *mamul* from all residents of the Mutha who owned land, either homestead or agricultural, by his Bevari or revenue assistant. But now-a-days the collection of taxes on any sort of *mamul* has been discontinued, and consequently the post of Bevari has become obsolete. All lands in Kondhmal were and are rent-free as no revenue settlement has ever been conducted. But all residents paid *mamul* or nominal gift, in cash or kind, before independence to the Mutha-head in recognition of their ownership right over the lands they possessed. In the earlier days, especially, during the formative period of the Mutha, *mamul* denoted entirely a voluntary payment given to the Mutha-head as a gesture of good will, which he received with thanks. But with the passage of time it assumed the form of an obligatory payment in order to establish hereditary right over the possessed land, and to avoid any possible eviction or encroachment. Besides this individual *mamul*, the Mutha-head levied *Mutha-Nazarana* consisted of an assorted presentation of rural agricultural produce to the Raja who acknowledged its receipt by

offering a silk saree to the Mutha-head. Offer of the saree by the Raja to the Mutha-head signified the former's approval of the latter's continuance as the Mutha-head. But this Nazarana or presentation transformed into regular revenue since British administration. Since British times the Mutha-head started collecting one rupee and ten measures (one measure is equivalent to one seer) of rice from each village every year irrespective of size towards the Mutha-revenue; but actually he paid twelve rupees annually out of the total collection of sixty-seven rupees and six hundred and seventy measures of rice. The rest he appropriated.

The British Political Agent discontinued the royal practice of presentation of saree to the Mutha-head against the payment of the annual revenue of the Mutha; but instead initiated the practice of issuing written receipts for that.

Presently, the Mutha head pays the same amount to the Government as the revenue of the Mutha.

Apart from the above income, the Mutha-head had four other types of customary receipts from the Kondh residents of his Mutha, viz. *Sari—Mamul*, *Butta—Mamul*, *Sanju—Mamul* and *Kedu—Mamul*. The *Sari—Mamul* was paid by the Mutha Mallicks, the *Butta—Mamul* by the near consanguines of a deceased person, *Sanju—Mamul* by a Kondh on the occasion of first harvest of his crop, and *Kedu—Mamul* by the organizers of a Kedu festival. A Muthmallick received annually a sari from Mutha-head, as the token of the

administration's approval of his continuing in the post, and paid in exchange *Sari—Mamul*, which consisted of five rupees, ten measures of rice and a fowl. The *Butta—Mamul*, which included rice, money and live-stock of any quantity was paid to the Mutha-head by the relatives of a deceased when the former called on the latter to offer condolence. And the *Kedu—Mamul* was paid collectively by the organisers of a Kedu festival to the Mutha-head for securing the latter's approval to hold the festival. The *Kedu—Mamul* was an assortment of various agricultural produces and may be of any quantity; And *Sonju—Mamul* was the levy of grains from each Kondh family on the occasion of first harvest of a crop.

Whenever a person harvested a crop first, he paid a small portion of it to Mutha-head. The quantity of *Sonju* (meaning share) paid to Mutha-head did not have any specificity. Since the inception of the rule of the Raja of Ghumsar in Kondhmal till Indian independence, the Kondhs of Pushangia Mutha were being engaged in *Bethi* or compulsory labour by the Mutha-head as and when required. It was the duty of the village Headman to collect persons for *Bethi*, from their respective villages, on receipt of orders from the Mutha-head. Every family, excepting those of the office-bearers of the Mutha organisation, was required to send a person for *Bethi* out of turn; and failure, under any circumstance, to comply with meant immediate payment of a day's wage to the Headman to engage a person as a substitute thereto. The duty of

the village Headman was not only to ensure the attendance of the required number of persons from their respective villages for Bethi but also to supervise the work, in which they were being engaged. Bethi entailed no remuneration, whatsoever, for the workers. They were to make their own eating arrangement, if their work-site happened to be from their homes.

There were two different types of Bethi, viz. Raj-Bethi (Bethi of the Raja of Ghumsar and subsequently that of the British Government), and the Patra-Bethi or Mutha-head-Bethi.

The Raj-Bethi included construction and repair of bridges, building and repair of rest-shed and its fencing, transportation of the luggage of the visiting officials of the administration, and work as their escort and attendant. Further, they were to subscribe towards the ration of the visiting officials

The second type of Bethi included obligation for catering to the various personal needs of the Mutha-head or Patra; viz. supply of wooden poles, bamboo and bamboo mats; thatching and repair of his house; repair of the fencing of his kitchen garden; tending of his live-stock, working in his fields; harvest of his crops; and escorting him on his tour; and such other duties which he assigned.

The Mutha-head or Patra septennially worshipped Patrakhonda, his tutelary deity, with elaborate paraphernalia; and on this occasion, he held out a get-together party for

all the Kondh leaders as well as for other prominent Kondhs of the Mutha. This he did with a view to reinforcing the loyalties of the Kondhs to him. The present Mutha-head or Patra has abandoned the party since independence.

The Karjee—He was the Judicial-clerk of the Mutha and was responsible to the Mutha-head or Patra. The post is defunct now. In the past he maintained all case records. Whenever a complaint regarding any dispute was lodged with the Mutha-head, it was he who recorded it and fixed up a date and place for adjudication of the case at the instance of the former. He summoned the parties to the place of hearing, and recorded the judgment of the Mutha-head. Maintenance of systematic case records had started since British rule.

And apart from this, whenever any instruction came from the British Government to the Mutha, he, with the approval of the Mutha-head, passed it orally on to the Mutha-Mallicks for compliance.

The Bevari—He was the revenue clerk-*cum*-accountant of the Mutha. In the past he collected various mamuls or taxes from all over the Mutha under the direct supervision of the Mutha-head. He supervised new patches of shifting-cultivation for revenue assessment. He maintained all the accounts of Mutha administration. The Bevari too has no function since independence, as he was not required thereafter either to collect tax or to maintain the account of the Mutha.

Dandia—During the early stage of the formation of the Mutha, like

the appointment of other Mutha functionaries, a few Dandia or Constables had been appointed on hereditary basis from the Paik Caste (Paiks formed the local militia in southern Orissa in those days) to constitute the constabulary of the Mutha with a view to helping the Mutha-head in maintaining law and order within the Mutha and thus to ensure his indisputable administrative control over the Kondhs. They worked as official messengers of the Mutha administration. Apart from carrying out errands, they collected required persons and brought them to Mutha headquarters and attend to such duties as were assigned to them.

Mutha-Mallick—There were five Muthamallicks within the Pushangia Mutha. They looked after the immediate law and order problems of their respective areas. They settled minor interpersonal and interfamilial disputes. But they brought to the notice of the Mutha-head complicated cases and also law and order problems. They assisted the Mutha administration in the collection of tax, in the organization of Bethi work and in such other works. As potential and indispensable incumbents of the Mutha organization, although subordinate to the Mutha-head, they were invariably consulted by the former in every important affair. Now-a-days, they adjudicate and settle dispute or settle any other socio-cultural problem if requested.

Village Headman—In every village there was a village Headman. As some amount of authority had been vested in him to maintain peace and order in the village, he looked after the immediate law and

order problems of his village, and brought dispute and other cases, which he failed to settle, to the notice of the Muthamallick for necessary action. He assisted Mutha administration in collecting revenues and in arranging persons for Bethi work from his village. As the village-level representative of the Mutha organization he attended to various instructions from the administration. These functionaries, though have become defunct, are still respected like the Muthamallicks because of their traditional status and role.

Chhatia—In every village there was a Chhatia or Chawkidar. He was the messenger and bearer of the village headman as well as those of other Mutha functionaries. He was always at the beck and call of the village headman. He reported each case of birth or death in the village to the Karjee, who maintained the record. The Chhatia still continues as the village Chawkidar.

Present form of the Traditional Mutha Organization—It is evident now from the preceding paragraphs that the Mutha organisation has dwindled away, and the functions of its functionaries have either been attenuated or have ceased to exist altogether. This resulted partly out of the constitutional safeguard which the Indian Constitution guaranteed to the tribes and partly of the extension of the scope of different government agencies into the tribes. The constitutional safeguard included among other things such privileges as exemption from paying land revenue non-eviction from occupancy, non-transferability of ownership right over land etc.

As a corollary to this measure the Mutha-head was legally inhibited from collecting any sort of tax from the Kondhs, either in cash or kind, and from escheating a person's property, either in part or full, when he died intestate. Consequently the traditional authority of the Mutha-head over the Kondhs was set at naught.

The position of Mutha-head becomes gradually more insignificant as the scope of general and police administration were extended on to the Kondhs. No longer he could employ them either in private or public Bethi.

In early sixties the statutory Panchayet system was introduced in this area, which assumed some of the functions of the Mutha organization in addition to its new ones. The Mutha was divided under the organization of the statutory Panchayet; this disintegrated the traditional territorial unity because it did not include all the villages. This new alignment of villages also failed to bolster up the traditional sociopolitical unity among

the villages in such cases where villages of different Muthas were grouped together.

Furthr, as a result of the extension of the general administration on to Kondhs, all serious cases relating to law and order are being dealt with by police and courts of law. This new system, to which the native Kondhs are still unaccustomed, has not proved to be very much beneficial to them. Because settlement of dispute or redemption of a grievance under the system takes relatively more time and becomes expensive.

They prefer their disputes and any other socio-cultural problem to be settled as per their traditional custom. Consequently, they take their cases now-a-days to the statutory Panchayets with the request to decide them in accordance with their tribal norm. And they also want the traditional Mutha functionaries such as, the Mutha-head and the Muthamallicks to be present in the meetings of the statutory Panchayets, in which their affairs are discussed.

The Kandhs of Nayagarh

D. K. SAMANTARAY

One of the well-known aboriginal tribes of Orissa, the Kandhs were once infamous for their practice of human sacrifice. About a century ago, the Kandhs who lived on hills were considered to be as fierce as they were formidable. The primitive Kandhs were as inexplicably mysterious as nature herself. They inherited nature's naivety as well as her fierceness. The Kandhs of today, however, do not inherit the fierceness of their ancestors though they continue to be as naive and ingenious as their forbears.

A number of scholars, Indians as well as Europeans, have evinced profound interest in the study of the social and economic life of the Kandhs and other aboriginals of this country, so much so that we have a spate of helpful research articles written on the tribesmen of our country. If we dig into the pages of the books and journals written on the aboriginals of India, we can get many interesting bits of information in regard to the peculiar customs which are prevalent in different tribal communities. For instance, referring to the Christening of a six month old Kandh child J. A. R. Stevenson writes 'Six months after birth, on a fixed day they make 'Gadathava' the ceremony of

naming the child. On that day killing a dog, and procuring liquor, they make baji. They wash the feet of the child.....' So it continue and a series of rituals are performed until the child is christened. Such a custom is only prevalent among the Kandhs of Ghumsur though the **Kandhs** in neighbouring places such as Nayagarh or Daspalla have little knowledge of it. It is, therefore, difficult to make a general observation on the rites and customs of the Kandhs since they vary so widely from place to place.

From the title of this article it is evident that I have circumscribed the scope of my study for the sake of accuracy. According to the census of 1961, the total Kandh population in Orissa is 818,847. The total Kandh population in Puri district is 31,845. This number must have increased by now since population is increasing at a rapid rate all over the country. A great majority of the Kandhs of the Puri district live in the subdivision of Nayagarh. There are three mālas in Nayagarh which are inhabited by Kandhs. These are Korada māla, Guni māla and Betanati māla. The rites and customs observed by the Kandhs living in these mālas are similar. There are instances of Kandhs

living in Betanati mala who have established matrimonial relationship with Kandhs living either in Korada mala or in Guni mala. A Kandh of Nayagarh does not want to give his daughter in marriage with a Kandh of Bolangir or Kalahandi or Koraput partly because of his dread of the distance and partly because of the different social customs prevalent among the Kandhs at different places of the State. This however, does not mean that the Kandhs are circumvented by caste barriers. As a matter of fact, one heartening feature of the Kandh community is that it is above the narrow bounds of caste prejudices.

In every Kandh village, there are leading men who hold different designations. The Padhan is considered to be the head of the village so far as the village administration is concerned. During the days of the ancient rulers of the ex-State of Nayagarh the Padhan was entrusted with the duty of collecting land revenue. Thus, he was the counterpart of the Saravarakar of a big village. Even today the Padhan assists the Revenue officials in matters of administration. The Jani is an important man of the village because he performs the duty of a priest. He is the *defacto* head of the village, because he is consulted in all matters other than those of administration. The Behera and the Malik are the leaders of the community. They occupy a more important position than the Padhan. One mala consists of thirty-two Kandh villages. While the Padhan is the head of a village from the administrative point of view, the Malik and the Behera are considered to be the

most important man in the entire mala. It naturally follows that they enjoy more power and greater social status than the Padhan. If an inhabitant of a Kandh village is found to be guilty of an offence it is the duty of the Padhan of that village to apprise the delinquent in question. Then the Malik, the Behera and the Padhan will sit in conference with the elderly members of the village before they make a decision to punish the offender.

The Kandhs are fond of taking active part in their festivals though they have relatively fewer festivals than the Hindus. The Kandhs do not observe the Hindu festivals. Jantal is the greatest festival of the Kandhs. It comes off in the month of Chaitra (round about March). The Kandhs celebrate the Jantal with as much grandeur and solemnity as they are capable of. It is celebrated for a day only. A communal offering is made to the deity on this occasion. In the olden days, the Kandhs of Nayagarh used to sacrifice a buffalo on the occasion of the Jantal. But this custom of sacrificing buffalo was abrogated as the slaughter of buffaloes was prohibited by law when Satar Khan was the regent of Nayagarh. At present, the Kandhs sacrifice a billy-goat in place of a buffalo on the occasion of the Jantal. Apart from the communal offering which is made to the deity on the occasion, there are opportunities for individual ablation. Most of the Kandhs believe that natural calamities and personal miseries are caused due to the alienation of the goddess. The propitiation of the goddess is possible only through the sacrifice of a

cock or a billy-goat. A feast is arranged on a mass scale in every village on the occasion of the Jantal. The participants who rejoice on this occasion are from both sexes. Men and women do not sing and dance in company. This is looked down upon by the Kandhs of Nayagarh though in Daspalla and Boudh the Kandhs enjoy singing and dancing with their women folk.

Sinajana is another important festival of the Kandhs which takes place in the month of either November or December. Beans, tamarind, etc., are first offered to the deity on this day before they are consumed by the villagers. The Kandhs have a superstition that if anybody will touch these beans or tamarind before they are offered to the deity, it will infuriate the deity who will appear in the form of a tiger and suck his blood to death. The Kandhs also celebrate the Dashahara festival, but they do not worship Durga on this occasion as the Hindus do. Since the Dashahara is an annual festival of the Kandhs, all the male inhabitants of a particular Mela area assemble before the deity known as Bagdebi in Korada mala or Hatiganda in Gunj mala, or Betal-khali in Betanati and make a communal worship. The women folk do not take part in the Dashahara festival though they participate in all the village festivals.

Maghapuda is a well-known festival of the Kandhs. It corresponds to Agipoda which takes place on the day of Magha Purnima. This festival is celebrated to bid farewell to the winter. The

Kandhs make a bonfire and rejoice on the night of Magha Purnami. The bitterness of the cold of winter is felt very keenly by these people as they live in jungles. Besides, they do not have warm clothes to protect themselves from the shivering cold. This is perhaps the reason why they rejoice when the winter comes to an end. Mandapitha is supposed to be one of the favourite delicacies of the Kandhs and it is usually made in almost every Kandh household on all festive occasions.

Much has been said about the hospitality of the Kandhs. There are numerous stories to evince the cordiality and the generosity with which the Kandhs receive their guests in their houses. It is hard to give credence to all these stories, but the fact remains that the Kandhs are hospitable by nature. In a number of villages in Nayagarh the Kandhs are hospitable by nature. In a number of villages in Nayagarh the Kandhs have collective funds for treating the guests who do not belong to their community.

It is interesting to note how a marriage ceremony takes place in a Kandh family. A proposal of marriage is initiated by the bridegroom's father. If the father is dead, the proposal in that case is brought by the eldest patriarch of the bridegroom's family. Under no circumstances a young man is permitted to marry a woman of his choice. The bridegroom's father or uncle or elder brother will first visit the bride's house in order to see the bride and open a negotiation of marriage. Then the bride's

father and other elderly relations will pay a visit to the bridegroom's house. Both parties discuss the proposal at large and if it is acceptable to the bride's father, the proposal is accepted then and there. The Kandh women do not play any role in the marriage negotiation. According to convention, the bride and the bridegroom are not permitted to see each other until the wedding day. The Kandhs do not usually observe marriage tithis, as the Hindus do. The date of marriage is fixed according to the convenience of both parties.

The bridegroom comes to the bride's house for marriage. The Kandhs do not get priest to solemnize the marriage. The bridegroom is made to sit on an altar which is specially made for the purpose of wedding. A peculiarity of the Kandh wedding is that no male member, except the bridegroom, is supposed to be present near the altar when the wedding takes place. The women folk take active role in the solemnizing of the wedding. The bride's relations sing nuptial songs at the time of wedding. The bride and the bridegroom take oaths of conjugal fidelity in the names of their respective deities. Soon after the wedding ceremony they go to the deity in the bride's village for worship and for obtaining blessings. Then they return to the bride's house where all the guests are entertained by the bride's father at a wedding feast. The groom spends the night with the bride in her house. On the next day, the bride's relations accompany the bridegroom's party to the groom's house.

The Kandhs of Nayagarh do not usually insist on dowry. The bride's father, however, voluntarily gives dowry to his daughter in the form of golden ornaments, rice, cattle, etc. There are different gotras in the Kandh community such as Ranakhia, Sarakhia, etc. and the custom is that there can be no marriage between a man and a woman who belong to the same gotra. Marriage with a cousin is strictly forbidden. An aggrieved husband or a wife can seek permission for divorce when all efforts for a reapproachment fail. No written document is maintained in the event of a divorce. A man can divorce his wife in the presence of the elderly people of the village. There is provision for remarriage both for the husband and for the wife.

Agriculture is the main source of income for the Kandhs of Nayagarh. As most of them are illiterate they prefer cultivation to service or business. Some of the Kandhs understand the importance of education and encourage their children to read. It is heartening to note that a number of Kandh boys from Nayagarh have passed their Matriculation examination and some of them are studying in colleges. After their primary education the Kandh boys are generally sent to the field for cultivation. Most of the Kandhs own land for cultivation though a few of them possess more than ten acres of good cultivable land.

The Kandhs have little interest in political affairs. In most of the Kandh villages people are ignorant of current political events and it is

very surprising that hardly a newspaper comes to the village. There is no post office in a neighbourhood of nearly five or six miles, as a result of which people have little occasion either to receive or post letters.

The Kandhs of Nayagarh are very indigent and they continue to live

in an appallingly underdeveloped condition. They are most hard hit in times of drought. They cannot afford to buy rice. Thus, they are constrained to eat solop powder which is not only inedible but positively deleterious to health. Sometimes they eat Tole, cherenga, Karaba and sola seeds in order to appease their hunger.

Economic Organization and Ollar—Gadaba village of Koraput.

MAKHAN JHA

Abstract

The Ollar-Gadba, a Dravidian speaking tribe of the district of Koraput, Orissa, are settled agriculturists and main source of their livelihood is cultivation. In the following pages an attempt is being made to describe economic life of the Ollar-Gadba with special reference to village Gugaguda in Pottangi Tahasil of this district.

Main and subsidiary Occupation

Agriculture being their main occupation, Ollar-Gadba attach great

importance to it. As the organisation and scale of farming are within the capacity of the cultivator, income from agriculture is definitely more regular than the income earned from seasonal labour. However, they consider the seasonal labour as their subsidiary occupation and a survey of 75 families of village Gugaguda shows the following figures as far as their main and subsidiary occupations are concerned.

TABLE I

Sl. No.	Main occupation	Families	Subsidiary occupation	Families
1	Agriculture ..	71	Labour ...	70
2	Non-agricultural occupation ..	4	Trade ..	4
		75		74

From the above figures it appears that there are two types of occupations professed by the villagers; the first is agriculture which provides the main occupation for 71 Ollar-Gadba families and second is seasonal labour which provides subsidiary occupation for 70 families.

Land-holdings

According to the revenue records of village Gugaguda the total area of land of this village is 318.20 acres. However, the total area of cultivable land in village Gugaguda proper is only 190.87 acres. The

Ollar-Gadba tenure-holders of the village may be grouped, according to their phratry and clanwise affiliations, as follows:—

TABLE II

Phratry	Clan	Area of land holdings	Total
		Acres	Acre
Durka	(i) Segakor	77.68	101.06
	(ii) Saratil	11.71	
	(iii) Muria til	7.02	
	(iv) Leya	4.65	
Ontal	(i) Guga	30.51	44.80
	(ii) Pombal	14.29	
Meen	(i) Korrekor	17.30	25.47
	(ii) Khota	8.17	
Kisavala	(i) Servatil	6.25	19.54
	(ii) Khosratil	9.24	
	(iii) Supaktil	2.94	
	(iv) Durla	1.11	
		Total	190.87

The average per family of land of this village comes to about 2.55 acres which seems to be not enough for the livelihood and that's why most of them go for road-side labour which is their secondary source of livelihood.

The Categories and Production of Commodities.

As agriculture is their main source of livelihood, the Ollar-Gadba produce varieties of commo-

dities in different seasons of the year. The different commodities, as recorded in village Gugaguda, are described below.

TABLE III

Sl. No.	Food grains	Pulses	Spices	Oil-seeds
1	Varsll (Pandy)	Buta Sembi	Mirial Chillies	Alsi
2	Mandi or Ragi	Bal sembi	Ada	..
3	Jana	Chana	..	..
4	Suwa	Kulthi	..	..
5	..	Masur or Musril..	..	..

Besides the above types of commodities which are produced in the fields, the Ollar-Gadba also produce crops like maize, mustard, tobacco, vegetables, etc. in the Kitchn-gardens attached to their houses. Of course every family does not possess kitchen gardens called *bari*. However, those who

have kitchen gardens attached to their houses, are in habit of maintaining the same. The *bari* is ploughed or spaded deeply and enough manure is applied there and hence *bari* land gives good yield. In Gugaguda the following are mostly produced in the *bari* land:—

TABLE IV

Sl. No.	Crops	Vegetables	Fruits
1	Jonel (Maize)	Sembi mul (Karaile)	Woolukul (Bannana)
2	Tobacco	Betaigil (Kumda)	Amritgul (Popya)
3	Dire Maria (in Hindi: Andi).	Alu (Potato)	Phancil (Jack fruits)
4	..	Vezel (To nato)	Karki-Marin
5	..	Kakashil (Brinjal)	..
6	..	Sersendal (Louki)	..
7	..	Sembil (seem)	..
8	..	Hal sembil	..

The Ollar-Gadba appreciate the value of *bari* land in their household economy and therefore bestow maximum interest and care upon it. Since these *bari* plots are found attached to their houses they keep constant watch over the garden.

Means and Techniques of Production

The means and Techniques of cultivation used by the Ollar-Gadba are much influenced by the size of holding, kind of soil and the types of crops grown. The cultivable land is of two types, viz. Kopel and Bair Vindil. Kopel types of lands

are those which are found on the hills and where pulses, vegetables oil seeds, etc. are produced. Bair Vindil types of lands are those where major crops like paddy, millet, maize, etc. are produced. Kopel types of lands are not ploughed. Since these plots of lands are full of stone, it is difficult to plough and so, these plots of lands are cultivated by means of spade. The Bair Vindi types of lands are ploughed by means of oxen and buffaloes.

Followings are the names of the agricultural tools and implements used by the Ollar-Gadba :—

TABLE V

Sl. No.	Local name of implement	English equivalent	Approximate price
			Rs. P.
1	Langal	Plough	.. 5
2	Kodki	Spade	... 4
3	Sambal	Garden spade	.. 3
4	Tangia	Axe	.. 3
5	Da/Gagra	Scythe	.. 1
6	Kole	Wooden clod pressure	.. 0.50
	Sute	Iron clod pressure	.. 1
7	Ankori	A big bamboo pole fitted with a scythe	.. 1

In this connection, it must be mentioned here that the Ollar-Gadba purchase only iron parts of their implements and wooden parts are inserted into the implements by themselves. For instance, they purchase tangia from the local market or from Salur and hafting is done by them at home. Similarly no body purchases full langal from the market, but only essential iron part of the langal is purchased and then

wooden parts are fitted. There are few implements like Sute (iron cold pressure), Da (scythe), etc. which are made of iron and thus, require no wooden parts.

So far as the use of agricultural implements are concerned the different implements are used on different occasions during the agricultural operations. For example, white ploughing the Bair Vindile type of lands, they use

langal but when they cultivate Kopel types of lands they use Kodki (spade), Sabol (garden spade), tangia (axe), sute (iron clod pressure), etc. One implement known as Ankori, is especially used at the threshing field while threshing paddy, millet, etc. Besides these uses of the implements, it was further observed in the village that a few agricultural implements like Kole, Da Tangia, Sambol, etc. are also used in the domestic works.

There are two methods of sowing practiced by the Ollar-Gadba of Pottangi Tahsil and its neighbouring areas, the transplanting system and the broadcasting of seeds. In paddy cultivation they mostly use transplanting method. In such cases a small plot of fertile land is selected as the nursery, which will suffice to plant on an acreage four times its own area (including the nursery itself). Before sowing the nursery land is ploughed twice or thrice and then manure like cowdung, ashes etc. is thrown there in order to have a luxuriant growth of the seedlings. The seedlings are fit for transplantation after 20 to 25 days when they are a foot high. In the meantime the cultivable land is ploughed at least twice and left for a week and the banks of the plots are repaired to hold water. The clods are broken and land surface is levelled and smothered. The land is again ploughed after rainfall to make the surface of the land creamy. The seedlings are uprooted from the nursery and stuck into the mud by the tips of three fingers, viz. thumb, index finger and middle finger while the

bundle of seedlings is kept in the left hand. The plantation of paddy by this method is locally called *Varsil Vundu Kung*. One of our informants named Mundugaria Sanyasi of village Gugaguda reported that for one acre of land 30 to 40 labourers are engaged for transplantation work. Both male and female labourers are engaged it is reported that female labourers are very quick in plantation of seedlings and hence they are in great demand. In village Gugaguda it has been recorded that the labourers engaged for transplantation work, as also in other agricultural operations, are paid mostly in kind. It is further reported that one labourer (he or she) is paid either one mano of paddy or one mano millet (mandia or sunwa).

One labourer can plant approximately 100 to 150 lots of seedlings in a day when the seedlings are uprooted on the morning hours of the same day. If the bundles of seedlings are made a day earlier, the labourer can stuck more than 150 bundles of seedlings.

The second method of broadcast sowing is also practiced by the Ollar-Gadba. This method is mostly followed for kopel type of lands which are used for the production of oil seeds, pulses, mandia, etc. Broadcasting of seeds is done after the fields had had at least one ploughing wherever it is possible. It is reported that broadcast sowing method is much cheaper than transplanting method, as the former requires less labour. Sometimes they practise broadcast sowing method to cultivate paddy also, in few plots of land, but they have

reported that under this method the yield is very poor.

Live-Stock

The Ollar-Gadba are not professional cattle breeders nor do cattle or diary products contribute any substantial amount to their income. But since they are cultivators and agriculture is the main source of their livelihood, they use cattle only for ploughing. They use not only the ox for ploughing their fields, but also cows and buffaloes. The total strength of cattle in village Gugaguda is given below :

Table VI

Cow	Ox	Buffalo
65	88	13

The total number of sheep in the village is 27, goat 37 and chicken 176. The importance of these live-stock lies in the fact that these are highly needed for sacrifice during the performance of different rites and rituals.

Indebtedness :

It has been found that the Ollar-Gadba are also in the habit of taking loans from the money lenders called the Sahukars, on different occasions to meet the expenses incurred in connection with rites and rituals, cloth, food, drink, etc. The loans are taken both in cash and in kind. An analysis of the data collected on indebtedness in village Gugaguda reveals that the total amount of loan taken in cash during 1966 was Rs. 1,290. In addition to cash loan, there were only four persons in this village who have taken loan in kind.

There are only two sources of borrowing in the villages. Some Ollar-Gadba families take loan from the well-to-do families of the village while a few of them take

loans from the Sahukars of Salur (district Sirkakulam). The interest on loan taken in cash differs from Mahajan to Mahajan. However, it varies from Rs. 25 per hundred per annum to Rs. 30 per hundred per annum. Sometime the rate of interest of cash money may go up if the debtor is in urgent need of money. It has also been found that sometime loan in cash is given on instalments by the creditor and when money accumulates up to certain amount which is beyond the capacity of the debtor to repay, the debtor is asked to mortgage his best piece of land. In village Gugaguda several cases of this nature were recorded by us which, if considered from sociological point of view, created tensions and brought, thereafter, jealousy and inter-family rivalry.

NOTES

(1) Field investigation among the Ollar-Gadba was carried out for four months in 1966. The village Gugaguda in Pottangi Tahsil of district Koraput was intensively studied. In addition to this, several other villages of the Ollar-Gadba were also visited by us and we collected a bulk of information on them. A monograph on the Ollar-Gadba is also being published by the Anthropological Survey of India, Calcutta.

(2) The Ollar-Gadba as well as some of the local tribes of this area have their own way of weighing grains. According to them,

20 monos = 1 putti

30 puttis = 1 garce

1 garce = 38 maunds

Psychological Correlates and the Adoption of Farming Practices in Rajbanshi Community.

K. K. DAS

Summary

The study was conducted in 12 contiguous Rajbanshi villages of Moyna Block, Midnapur district, West Bengal to develop a new model on adoption behaviour by multiple regression analysis technique. The total number of Rajbanshi farmers were 202. The data were collected during 1968. The independent variables of this research were credit orientation, secular orientation, urban pull, political knowledge, empathy, income aspiration, educational aspiration for children, planning orientation, self-reliance, achievement motivation and deferred gratification. Multiple regression analysis eliminated deferred gratification and achievement motivation. The nine variables were observed to contribute jointly towards 63 per cent of the predictability of the adoption behaviour. 37 per cent of the variation in adoption of more improved farming practices at a time remained to be accounted for.

The problem

The study of the influence of psychological makeup of the Indian farmers on the adoption of more agricultural technology at a time is a difficult job for the social scientists.

Sen (1968) in his paper has developed eleven variables model for the study of adoption behaviour of the Indian farmers by using correlation technique. Chattopadhyay and Pareek (1967) have also developed a model to study the multipractice adoption behaviour of the Indian farmers. In this paper we have tried to develop the Sen's model by using Chattopadhyay and Pareek technique.

Materials and methods

The study was conducted in twelve Rajbanshi villages of Moyna Block of Midnapur district, West Bengal, constituting twelve contiguous villages, namely:—Ismalichak, Raychak, Pyrachak, Bakcha, Arangkiarana, Mudhurkiarana, Balbhadrachak, Kiarana, Gojina, Goramahal, Shridharpur and Kripanandapur during 1968. Before starting the work, the name of the progressive farmers in Rajbanshi community, were collected from the anchal office. The total number of progressive farmers were 337.

Proportionate stratified random sampling technique was adopted for sampling purpose and from 337, 60 per cent were selected. Thus total number of selected Rajbanshi farmers were 202.

For the purpose of data collection, modified pretested questionnaire of Sen (1968) was utilized. The data had been collected mainly through the personal interview technique.

The community

Rajbanshi who have originated from Dravidian Stock with supposed admixture of Mongolian blood, are widely distributed throughout the State of West Bengal with heavy concentration in the district of 24-Parganas, West Dinajpur, Midnapur and Jalpaiguri. They constitute the largest Scheduled Caste community in this State. They are mainly agriculturists though fishing is also practiced by them. Now-a-days they follow different types of occupations. They are the followers of Hinduism and mainly speak in Bengali. They have considerably raised their social status during recent decades. Educationally they are also more advanced than other communities.

The adoption quotient

For the measurement of adoption behaviour of progressive Rajbanshi farmers, we have utilized the Adoption Quotient (A. Q.), as has been utilized by Chattopadhyay and Pareek (1967). Calculation of adoption quotient in this study was based on data on adoption of ten practices, namely, ammonium sulphate, urea, mixed fertilizer,

taichung native-1, I. R. 8, F. Y. M., improved method of paddy cultivation, jute drilling, plant protection chemicals and sonalika.

Independent variables

For the purpose of this study 11 independent variables were taken into consideration, Credit orientation, planning orientation, self-reliance, deferred gratification, secular orientation, income aspiration, achievement motivation, educational aspiration for children, empathy, political knowledge and urban pull.

Results and discussion

Simple correlation—The correlations of each of the independent variables (X.....X) with the dependent variable, adoption quotient (X) and every other variable have been represented in the Table 1. In the table we have seen that there are significant relationship between adoption quotient and credit orientation, secular orientation, urban pull, political knowledge, deferred gratification, educational aspiration, planning orientation, self-reliance, achievement motivation and empathy at 0.01 level.

All the independent variables except deferred gratification and income aspiration, achievement motivation and self-reliance are significant at .01 and .05 level.

TABLE I
Inter correlation matrix of dependant and independent variables

Variables	X ₀	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀	X ₁₁
Credit orientation	X ₁	.421**										
Secular orientation	X ₂	.421**	.522**									
Urban pull	X ₃	.387**	.382**	.213**								
Political knowledge	X ₄	.362**	.273**	.205**	.41**							
Empathy	X ₅	.339**	.389**	.177**	.493**	.53**						
Income aspiration	X ₆	.217**	.290**	.215**	.312**	.341**	.341**					
Educational aspiration for children	X ₇	.203**	.481**	.431**	.349**	.154*	.217**	.154**				
Planning orientation	X ₈	.142**	.70**	.285**	.133**	.31**	.307**	.398**	.275**			
Self-reliance	X ₉	-.13**	-.435**	-.173*	-.248**	-.379**	-.213**	-.13**	-.138**	-.155**		
Achievement motivation	X ₁₀	-.105**	-.551**	-.181**	-.173*	-.135*	-.151**	-.347**	-.351**	-.139*	0.079	
Deferred gratification	X ₁₁	-.095**	-.321**	-.200**	-.155*	-.09*	-.289**	-.242**	-.281**	-.261**		.175*

** Significant at (.01 level) ; * Significant at 0.05 level

TABLE II
Multiple Regression Analysis

Variables		Beta weights for							
		Eleven variables	Ten variables	Nine variables	Eight variables	Seven variables	Six variables	Five variables	Four variables
Credit orientation	..	X ₁	.312**	.310**	.312**	.312**	.300**		
Secular orientation	..	X ₂	.310**	.301**	.305**	.270**			
Urban opull	..	X ₃	.299**	.283**	.294*	.240**			
Political knowledge	..	X ₄	.278**	.241**	.207**	.201**			
Empathy	..	X ₅	.249**	.237**	.205**	.200**			
Income aspiration	..	X ₆	.217**	.20**	.189**	.173**			
Educational aspiration for children	..	X ₇	.187**	.143**	.107**	.100**			
Planning orientation	..	X ₈	.148**	.133**	.102**	.098**			
Self reliance	..	X ₉	-.102**	-.098*	-.071	..			
Achievement motivation	..	X ₁₀	-.092	-.057	..	..	
Deferred gratification	..	X ₁₁	-.043	..	..	..
		R ₂	.6843	.6753	.6361	.5491			

** Significant at 0.01 level

Multiple correlation and Regression—Table II gives the results of a multiple regression analysis with eleven, ten, nine and eight variables. Beta values were also given.

The table indicates that R is .6843 when all the eleven variables were taken into consideration. Deferred gratification was dropped for its low value and the R for ten variables was .6753. Again, when the achievement motivation was dropped, the calculated R for 9 variables was .6331. Here the reduced predictability adoption is 4.2 per cent. On the other the Beta values for remaining eight variables was .5431. So it may be

concluded now that a combination of nine variables may predict adoption behaviour.

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Some Magico-Religious Beliefs About Plants Among Adibasis of Orissa.

DR. S. K. JAIN

The tribals living in forest areas have very intimate relationship with the plants of their surroundings. By the method of trial and error, over a number of generations, they have discovered what plants are suitable to them for food, medicine, fibres, dyes, etc. Information on many of these uses is still endemic in these tribal societies.

Considering the immense value of plants in the lives of the tribals, it was natural that numerous plants got associated with their religious beliefs, festivals, ceremonies and even magical performances or sorcery.

The following is a brief account of some such magico-religious associations of plants as reported to the author by the Kondh and Saora tribals of Ganjam and Phulbani districts of Orissa.

In most cases, it is difficult or impossible to reason out the bases of these beliefs. Sometimes, however, a very reasonable conjecture can be made about the underlying idea or motive. Author's earlier work (Jain 1963) among certain other tribes of central India had shown that some of these beliefs

are indirect suggestion for the following:—

- (i) highlighting the economic value of certain species of that region;
- (ii) preservation or protection of certain species;
- (iii) or, elimination of certain unwanted species or weeds.

A very interesting instance of the 3rd type will be seen below in case of the weed *Leucas aspera* (Serial No. 13).

In the following account, plants are arranged alphabetically by their botanical names. The local names (K: Kui; S: Saora; O: Uriya) are also given. Local names greatly vary from place to place and, therefore, botanical names of plants (even though unfamiliar to common readers) are essential for fixing the identity of the plant under discussion. Only they can enable an inquisitive mind to explore further.

Some plants were seen in incomplete condition, and could not be determined fully. For convenience of reference, an alphabetical list of local names is appended

A short note is given on the habit or habitat of the plant.

The magico-religious beliefs are given as narrated by the tribals. It is needless to mention that there is no indication of author's own regard or disregard for these beliefs.

1. *Achyranthes aspera* Linn.

Family : Amaranthaceae.

(K : Rusabedru ; S : Garadim ; Kharmanjari).

A much-branched herb occurring in waste places, outskirts of habitations and in open fields, more common in hedges.

The roots of the plant are worn on the arm (right arm for males, left arm for females) to cure periodic fever. While tying the roots, the string should be folded 7 times and twined.

2. *Asparagus racemosus* Willd.

Fig. 1.

Family : Liliaceae.

(K : Painajaperi, Painasaperi ; S : Umudig).

A prickly climber, with small needle-like 'leaves'.

A twig of this plant is placed between the two cotyledons of a mango kernel. This is touched with the body of a ghost-affected person and thrown away, the person becomes alright.

3. *Cissampelos pareira* Linn.

Fig. 2.

Family : Menispermaceae

(K : Gindikliri, Tittikidi, Uram-mala ; S : Parangad ; O : Akanbindi).

It is a slender climber with handsome orbicular leaves.

A piece of stem is tied in thread and worn in neck; it cures headache. Also see No. 19.

4. *Clitoria* sp.

Family : Leguminosae

(S : Jugangosa)

A climbing plant

If a woman, after delivery of child, is given bath in decoction of root of this plant, she is not affected by ghosts.

The root of this plant is rubbed on stone; this paste is applied on forehead and body of young babies; the babies are protected from the evil eye of ghosts. A piece of root worn round the neck is also believed to have same effect.

5. *Cynodon dactylon* (L.) Rich

Family : Gramineae

(Dub-ghas)

This is the common grass of our lawns and footpaths, etc.

See No. 19

6. *Dendrophthoe falcata* (?)

Family : Loranthaceae

(Madang)

It is a parasitic plant, occurring on trunks and branches of many trees.

A piece of stem of this plant is worn on the arm; it cures fever.

The parasite on the tree of **Semecarpus anacardium** Linn. i. (S: Alai) is associated with some Mantras (oracles).

7. Elephantopus scaber Linn.

Family: Compositae

(S: Dauludjing)

An erect herb, common in open areas of forests.

The root of this plant is worn in the ears; it cures headache. The Saora name of the plant is based on this usage, *Daui*: to hang, *Lud*: ear, and *Jing*: a herb).

8. Helicteres isora Linn. Fig. 3

Family: Sterculiaceae

(K: Keheli; S: Kurkure)

A large shrub with orange flowers and twisted fruits.

The twigs of the plant are placed on the door of the hut of a pregnant woman; it relieves the labour pains.

9. Hemidesmus indicus (Linn.) Schult. Fig. 4.

Family: Asclepiadaceae.

(K: Chiramar, Trajamala; S: Gargeri, Gerhedi; O: Ladugora).

A slender climber, having milky juice.

If the skull-bones of a baby are not growing properly, and the 'hollow' of the head is not filling up, hang a few roots in the neck of the baby. The head will become strong and good for carrying loads.

10. Iris sp.

Family: Iridaceae

See No. 19

11. Jatropha gossypifolia Linn.

Family: Euphorbiaceae

(K: Rajiked; O: Lanka-kalo)

A plant with succulent stems; leaves resembling those of cotton plant.

A piece of root is tied in a thread and put in neck of cattle; it cures their wounds.

12. Launea nudicaulis Less.

Fig. 5.

Family: Compositae

(K: Nahodibangosi, Nakurbangosi, Rakkosasa).

A small herb with yellow flower-heads; occurring in open fields.

Roots of the plant are worn in the neck to guard against ghosts and evil spirits.

13. Leucas aspers Spreng

Family: Labiatae

(K: Kuppinkucha; S: Potolap; O: Gonges, Goyaso).

A small herb with white flowers; usually growing as weed in cultivated or harvested fields.

There is a belief among Saoras that if a virgin girl gives large numbers of this plant as offering to Lord Shiva, she will get a good life-partner.

Note: This seems to be a very interesting method of eliminating unwanted plants from field.

14. *Limonia crenulate* Roxb
(*Hesperethusa crenulata* (Roxb.)
Roem).

Family: Rutaceae

(K: Kanda-diddi, Bimut; S:
Kumballi, Odabela).

A small tree, with thorny branches, and gland-dotted leaves.

If a few leaves are tied to the arm of a 4 day old baby, he will be protected from evil eye of ghosts.

15. *Milletia auriculata* Baker ex
Brandis.

Family: Leguminosae

(K: Autamala, Kisimala; S: Sana; O:
Kadachina, Makadsiadi)

A large woody climber with flat pubescent pods.

The plant is first worshipped and offered to the local deity; a twig is then touched with the body of a sick person, it cures fever.

16. *Ocimum americanum* Linn.
Fig. 6.

Family: Labiatae

(K: Hundipunga; S: Malamlajing,
Samadajing; O: Kapuri).

An aromatic herb occurring in harvested agricultural fields.

It is considered auspicious to display a twig of this plant in head-dress, specially on festivals and during visits to friends.

17. *Phoenix humilis* Royle var.
Pedunculata Becc.

Family: Palmae

(K: Sita; S: Odeng; O: Kujji-Khe-
juri).

It is a small, almost stemless palm common in the undergrowth of 'sal' and other forests.

An insect is occasionally found in the basal part of the stem; the larva of this insect is dried and worn in neck to cure wounds, enlarged spleen, and other ailments.

18. *Scoparia dulcis* Linn.

Family: Scrophulariaceae

(K: Atisirsa; S: Boradajing O:
Bangangai).

A small herb occurring in open forests, in partial shade or in open places; flowers small white.

A piece of root is tied to the arm of a nursing woman; it improves lactation.

19. *Smilax zeylanica* Linn. Fig. 7

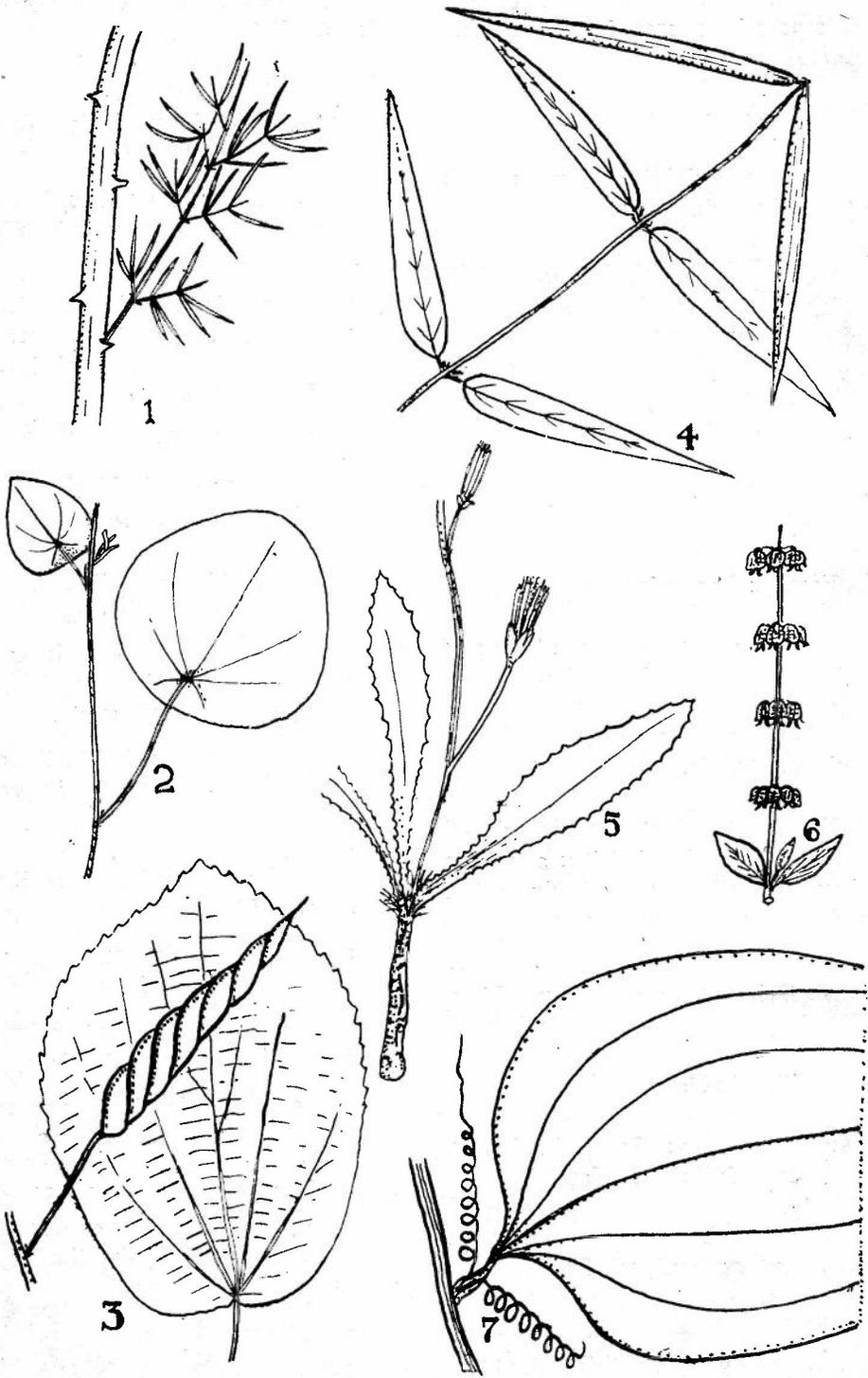
Family: Liliaceae

(K: Prachikora; S: Ramtungur; O:
Mutturi).

A very prickly robust climber, with large leaves and tendrils.

The root of this plant and the roots of *Cissampelos pareira* (3), (*Cynodon dactylon*) (5) and *Iris* (10) are tied in thread. If this thread is put in bed, one does not get bad dreams. If the thread is worn on arm, it cures fever.

Some children suffer from the disease of wetting at night; if they take food served on the leaves of this plant, the disease is cured.



20. *Xanthium strumarium* Linn.

Family: Compositae
(K: Jarjatia).

A shrub, very common in waste places and road-sides; fruits very prickly, adhering to bodies of cattle and clothes.

The prickles are removed by rubbing the fruits on stone; the fruits are worn in neck, on arm or in waist; the night-blindness is cured.

Classification

According to usage and association, the above species can be classified as below:—

1. Associated with human ailments:—1, 3, 5, 6, 7, 8, 9, 10, 15, 17, 18, 19, 20.

2. Associated with diseases of cattle—11.

3. Associated with other material advantages—13, 16.

4. Associated with ghosts and evil spirits—2, 3, 4, 5, 10, 12, 14, 19.

Acknowledgements

I am grateful to Shri P. C. Sarangi, A. I. F. C., who helped me in interpreting the statements of the informants.

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APPENDIX

Alphabetical list of local names (Kui, Saora & Uriya)

(The language is indicated in parenthesis. The number refers to the serial number of species in the text of the paper).

Akanbindi (O)	..	3	Kurkure (S)	..	8
Alai (S)	..	6	Ladugora (O)	..	9
Atisrsa (K)	..	18	Lankakalo (O)	..	11
Autamala (K)	..	15	Madang	..	6
Banganjai (O)	..	18	Makadsiadi (O)	..	15
Bimut (K)	..	14	Malamlajing (S)	..	16
Boradajing (S)	..	18	Mutturi (O)	..	19
Chiramar (K)	..	9	Nahodibangosi (K)	..	12
Dauludjing (S)	..	7	Nakurbangosi (K)	..	12
Dub-ghas	..	5	Odabela (S)	..	14
Garadim (S)	..	1	Odeng (S)	..	17
Gargerri (S)	..	9	Pairajaperi (K)	..	2
Gerhedi (S)	..	9	Painasaperi (K)	..	2
Gindikliri (K)	..	3	Parangad (S)	..	3
Gonges (O)	..	13	Potolap (S)	..	13
Goyaso (O)	..	13	Prachikora (K)	..	19
Hundipunga (K)	..	16	Rajiked (K)	..	11
Jarjatia (K)	..	20	Rakkosasa (K)	..	12
Jugangosa (S)	..	4	Ramtungur (S)	..	19
Kadachina (O)	..	15	Rusabedru (K)	..	1
Kandadiddi (K)	..	14	Samaidajing (S)	..	16
Kapuri (O)	..	16	Sana (S)	..	15
Keheli (K)	..	8	Sita (K)	..	17
Kharmanjari	..	1	Tittikidi (K)	..	3
Kismala (K)	..	15	Trajamala (K)	..	9
Kujjikhejuri (O)	..	17	Umuding (S)	..	2
Kumballi (S)	..	14	Uram-mala (K)	..	3
Kuppingkucha (K)	..	13			

A Tribal Market in Parlakhemendi Agency.

PURNACHANDRA MOHANTY

The study of marketing and exchange was undertaken in course of conducting the survey of Gumma Tribal Development Block under the Parlakhemendi Subdivision in the district of Ganjam. In this Block there are 12 Grama Panchayats with a vast majority of tribal population. The tribals mentioned in this paper are typical Lanjia Saoras who live in most inaccessible areas and worship innumerable deities and deified ancestors in a number of ceremonies. Every stage of cultivation and other economic pursuits is started after performing a rite.

The marketing and exchange system was studied against this background in order to know the habits concerning sale, purchase and consumption of the Saoras. An attempt was also made to ascertain the role of middlemen in a tribal market.

By its very nature tribal economy affords restricted scope for exchange transactions. The basic needs of Saora tribe are few and strictly limited in variety. Coarse grain, wild roots and tubers, salt, chilly, a strip of cloth, tobacco and country liquor are the prominent items in their consumption budget. Even for these limited wants the

tribals are not required to resort to exchange except for salt, cloth, chilly and sometimes for cattle. Saoras produce most of their food-grains. Wild root, fruit and meat are their supplementary food. Every bit of material used in his cottage is a local product. The cottage itself is the result of his personal labour. The iron implements are no doubt brought from the local market but all wooden agricultural implements are made by the Saora. The self-sufficient character of Saora economy, thus (though shaken by modern forces) restricts the scope of exchange transaction in their life. Physical and social factors operating in the tract further reduce the volume of buying and selling. Whenever a Saora family needs tobacco leaf or salt his neighbour comes to his help. The limited use of money as medium of exchange activities leads to barter economy. Foodgrains are the major medium of exchange and the comparative lack of the use of money reduces the exchange transaction to the minimum. From the trader's point of view Saora villages do not constitute an attractive or profitable market. Most of the primitive Saora habitats in clusters and situated on inaccessible hill tops where transport involves heavy cost, exertion and danger. There

are however, another set of forces working in the opposite direction. During recent years a number of Saora villages have adopted stable cultivation and improved method of agriculture. The change has necessitated more exchange transactions. Saora now wants more iron implements, cattle and more seeds. Besides these he needs more cash for payment of land revenue and purchase of certain other goods. This has shaken the very foundation of self-contained Saora economy. The Saora is now seen buying from the market his requirements like tobacco, spices and oil which he himself used to produce.

The growing contact with the outside world has created a new outlook and generated new wants. There is now a growing demand for fancy articles like glass bangles or beads, mirror, comb, ribbon, metal utensils, soap, tobacco paste (gurakhu), lamps and boxes. As a result the volume of buying habits and activities have increased in recent times. When the harvest is done the Saora carries the crops to the Kumuti (local money-lenders) for payment of interest for the loans incurred by him earlier.

This is his regular practice. After paying the loan to the Kumuti very little is left for marketing. Even if he takes some foodgrains from stock for the year, the Pano and the Paiko are once again on the Saora's way of free transaction. On the day of the weekly market the Pano and Paiko intercept the Saora on the way. As soon as they see a Saora coming to the market with food grains they catch hold of him and

acquire his commodities at a very low price. The Pano and Paiko take the Saora to a nearby bush and measure out the grain with a measuring pot larger than the standard size but when they sell something to him the measure is much below the standard size. Such cheating reduces the Saora's due to almost one eighth of what he would have got by fair transaction. With this background, an descriptive account of a specific Saora market is presented below.

Local Market :

The local market is at a distance of 20 K. M. from Parlakhemedi the subdivisional headquarters. The market is known as "Gumma-Hat". It is held once a week, i.e., on Thursday. It is in a central place approachable to a large number of Saora villages under the subdivision. The area, being walled by mountains and sections thereof cut off by deep valleys, renders communication difficult. Daily market under these circumstances is not possible. Moreover, the Saora purchase their bare necessities for a month or so at a time. So the market at Gumma is conveniently held once in a week.

The market starts at 6 A. M. and is over by 11 A. M. Both buyers and sellers make their way to the market early in the morning on market days. People carry the articles for sale on the head or by means of 'Bhara'. A few bring their merchandise on bullock carts when such transportation is possible. The Saoras carry small packages of foodgrains, fruits, roots and vegetables to the market to sell them and buy some essential

commodities in return. Rarely they come with their live-stock like fowls, goats and buffaloes. Work is almost suspended in the village during the forenoon of the market day. Men and women of all age groups come freely to the market. Some non-tribal dealers bring ready-made dress and clothes for them. Some other Hindu dealers come with stationery articles and metal utensils and iron implements from Parlakhemedi. Both in weight and measurement they charge high price for commodities but the Saora returns cheerfully from the market amply satisfied with the purchase he has made.

In this market there were only three Kumuti shop keepers, almost enjoying a monopoly charging whatever they chose. Even a napkin was sold for Rs. 2.50 which would ordinarily cost only Rs. 1.25 paise in Parlakhemedi town 20 Kms. away from Gumma.

Besides buying and selling, Saoras also borrow from the Kumutis in the market and pay interest. On the market days they are found paying interest to them. The Kumutis have employed some Paikos to measure the crops. The Paikos use a large measure and take a handful of grains with the measuring pot every time. As a result the Saora always remains a defaulter in the

payment of interest. The Kumutis knowing the time of harvest come to market and ask them to pay the interest. They and the Panos also know exactly when the Saora is in want and offer loans to them. In this way the Kumutis lend money and go on collecting interest year after year.

The local Panos and Paikos know the necessities of the Saoras. They charge high price for the commodities which are badly required. Sometimes the sellers charge high price when they know that the Saora has sufficient money and food-grains. Generally Saoras do not like to go out during rainy season. So they make all their purchases before the rain starts.

Besides market, the Saoras also get their requirements from their own village. Here commodities are exchanged on the basis of barter. The local Panos and Paikos visit Saora village every alternative day with commodities like chilly, salt, onion, beads, pots, baskets and mats and exchange them against crops.

Commodities Entering the Tribal Market :

The following list of Saora's sale and purchase gives a rough idea of his exchange activity :—

Name of the crop	Articles sold by the Saoras		Articles purchased by the Saora
	In Saora language	English equivalent	
1. Jana ..	Kambur	Millet	1. Salt
2. Harada ..	Kandula	Arhar	2. Cloth

Name of the crop	Articles sold by the Soaras		Articles purchased by the Soaras
	In Saora language	English equivalent	
3. Jhadunga ..	Kadrum	Runner bearer	3. Chilly
4. Ghan i ..	Kero	..	4. Onion
5. Bar gudi ..	Ceinal	..	5. Oil
6. Sag ..	Wap	Spinach	6. Tobacco
7. Mundia ..	Siti	Ragi	7. Bid
8. Rasi ..	Jute	Gengelly	8. Country Ch root
9. Lau ..	Aung	Gourd	9. Beads
10. Sima ..	Arkal	Bean	10. Earthenpots
11. Kadamala ..	Argai	Sweet Potato	11. Baskets
12. Sweet root ..	..	Sweet root	12. Iron implements
13. Mahula ..	Mahua	..	13. Ornaments
			14. Rope
			15. Chicken
			16. Gudakhu
			17. Utensils
			18. Dry fish
			19. Hair pins and clip
			20. Stationery goods.

Weights and Measures :

Weights and measures followed in the local market are given below with their metric equivalent :

Weights	..	1. Bisa	..	1 Kg. 750 Grams
		1. Seer	..	910 Grams
Measures	..	4 Adas	..	1 Mana-3 Kg. (Approx.)
		20 Manas	..	1 Pauti.

The above mentioned weights and measures generally operate in local market but the Saora, is least concerned with the weights and measures. He simply stands, takes the goods, pays the amount but does not take account of the

weights and measures. Cloth is however, measured by yard and feet, but in some cases it is measured by hand.

Market is not only a place for selling and buying, it is also a place

for communal gathering. Saoras of different villages assemble in the weekly market, meet and greet their friends from other villages. They send important messages to their near and dear friends living in other villages. Information like child birth, marriage, etc. are sent to the relatives in this manner.

Market is visited by men and women. When there is pressure of work in the field, women visit the market and men keep themselves engaged in the field. The Saoras carry *salop*, a kind of liquor from *Sagoo* palm and *Peja* with them when they go to the market.

After marketing, they visit the sweet stalls and purchase sweets and some oilfried cakes for their children. Then they take *salop* and *peja* sitting in a group under a tree.

Middlemen exploiting Saoras figure prominently in the local market. The middlemen purchase the tribal products at a lower price and sell in town at a higher price. The Saoras who toil the year round for the production of their food-grain, do not get the benefit of selling them due to their inability to go to the town. While doing field investigation the prices of different commodities were observed as follows:—

Name of the article	Price per each
	Rs. P.
1. Loin Cloth	5.00
2. Napkin	2.50
3. Sickle	0.50
4. Rope (Pagha)	0.50
5. Coconut	0.50
6. Orange	0.10
7. Salt	0.25 per Kg.
8. Chilly	5.00 per Kg.
9. Brinjal	0.40 per Kg.
10. Ginger	1.20 per Kg.
11. Turmeric	2.00 per Kg.
12. Kerosene oil	0.75 per litre
13. Mandia	1.50 per Kg.
14. Onion	0.50 per Kg.
15. Rice	0.75 per Ada
16. Chicken	6.00 per each

The above list would indicate that the price of the articles sold by the Saora is much lower than the

market price at Parlakhemendi but those which are purchased by him fetch a much higher price.

Education of Scheduled Tribes and Nomads.

SAILESWAR PRASAD

Education is one of the important aspects of human development. It is an essential pre-requisite for the all round development. The tribal people in India are at different stages of economic and educational development, hence the problem of their education is all the more important so that they come at par with the general Indian population.

The 1961 Census revealed that the literacy percentage for the entire country is 24 per cent as against 10.27 per cent for Scheduled Caste and 8.54 per cent for Scheduled Tribes. Thus it is evident that we have still to go a long way to reach the national level as far as the education of Scheduled Tribes and Scheduled Castes are concerned.

Since Independence education of the tribal people was given prime importance and huge amounts have been spent on it but the result is not commensurate with the amount spent. This shows that there are some bottle-necks in achieving the required goal. There are several problems associated with the education of Scheduled Tribes in relation to their ecology and economy, social organisation, traditional values, socialization,

enculturation, attitudes, etc. Apart from these, there are certain other problems related to facilities available in the tribal areas such as school, teacher, mother-tongue and medium of instruction and content and curriculum. In addition to these general problems of the Scheduled Tribes the nomadic tribes have another handicap of being mobile making the problem of their education still more difficult.

The Tribes of India can be classified into three major belts according to their distribution—Northern and North-Eastern Zone, Central Zone, and the South-Western Zones.

The tribal concentration in Northern and North-Eastern Zone is in Assam, Manipur and Tripura, Nagaland, NEFA and northern portion of West Bengal particularly the districts of Darjeeling and Jalpaiguri.

This zone is inhabited by tribes like Gurung, Limbu, Lepcha, Aka, Dafia, Abor-Miri, Mishmi, Singpho, Mikir, Rabha, Kachari, Garo, Khasi, Naga, Kuki-Lushai, Chakma and others.

The Central Zone includes the states of Bihar, Orissa, West Bengal and Madhya Pradesh. The maia

tribes inhabiting the Central Zones are the Santal, Munda, Oraon, Ho, Bhumij, Kharia, Birhor, Bhuiya, Juang, Kondh, Savara, Gond, Baiga, Bhil, Koli, etc.

In the South-Western Zone the tribal concentration is in Andhra Pradesh, Maharashtra, Tamilnadu, Mysore, Rajasthan and Gujarat. This zone is inhabited by the Chenchus, Kota, Kurumba, Badga, Toda, Kadar, Malayan, Muthuvan, Urali, Kanikkar, etc.

The tribes of India can be classified in different stages of economic development, viz., in hunting and food gathering stage, or in the stage of nomadism, in shifting cultivation stage, and in the stage of settled agriculture including that of arts and crafts.

Kharia, Birhor, Kuki, Konyak, Naga, Hill Maria, Koya, Konta Reddy, Palyan, Kodar, Hill Pantram and Juang are in the lowest rung of economic development and are

engaged in hunting and food gathering. They wander from one place to another in search of food and game.

Among the shifting cultivators are the Korwa, Saheria, Bhuiya, Kharwar, Asur, Garo, Mal Pahariya, Maler, Naga, Garo, Lakhus, Maria, Dandami, Gond, Khond, Kurumb Saora and Madavan.

The settled agriculturists are the Tharu, Oraon, Munda, Manjhi, Bhoksa, Ho, Santal, Polia, Khasi, Porja, Bhattra, Badaga, Kota, Iruia, Paraja, Bhil, Gond etc.

Similarly the tribal people are also at different stages of educational development considering their percentage of literacy. The tribal communities can be grouped under two categories : Developed or semi-developed, and extremely backward. The representation of the Scheduled Tribes under these heads can be seen in the following table:---

States	Developed or semi-developed	Extremely backward or under-developed
1	2	3
Bihar	1. Bathudi (13.6 %) 2. Bhumij (11.7 %) 3. Binjhia (8.1 %) 4. Chero (10.7 %) 5. Chik-Boraik (11.1 %) 6. Gond (11.5 %) 7. Gorait (11.5 %)	1. Asur (4.3 %) 2. Birhor (2.7 %) 3. Korwa (5.9 %) 4. Sauria Paharia (2.2 %) 5. Baiga (2.6 %) 6. Birjia (4.6 %) 7. Karmali (5.2 %)

States	Developed or semi-developed	Extremely backward or under-developed
1	2	3
Madhya Pradesh	8. Ho (9.6 %)	8. Kora (3.8 %)
	9. Oraon (12.7 %)	9. Mal Paharia (1.1 %)
	10. Munda (13.4 %)	10. Parhaiya (2.3 %)
	11. Santal (6.08 %)	11. Savar (5.9)
	12. Kherwer (6.5 %)	12. Bedia (5.6 %)
	13. Ori-Lohara (7.1 %)	13. Kisan (5.6 %)
	1. Bhaina (7.1 %)	1. Pahadi Korwa (1.7 %)
	2. Halba (10.4 %)	2. Baiga (2.2 %)
	3. Kawar (9.8 %)	3. Abujh Maria (?)
	4. Khond (9.1 %)	4. Birhor (1.2 %)
	5. Munda (7.6 %)	5. Seharia (0.9 %)
	6. Oraon (8.6 %)	6. Binjhar (6.1 %)
	7. Pradhan (11.9 %)	7. Bhil (4.3 %)
	8. Sawar (8.5 %)	8. Bhilala (0.8 %)
		9. Gond (2.8 %)
		10. Kamar (1.4 %)
		11. Kol (5.8 %)
		12. Korku (1.6 %)
		13. Agaria (1.8 %)
		14. Bhariya (3.5 %)
		15. Bhattra (4.6 %)
		16. Biyar (1.2 %)
		17. Dhanwar (2.4 %)
		18. Kharia (3.8 %)
		19. Manjhar (2.6 %)
	20. Pao (2.4 %)	
	21. Pardhi (0.6 %)	
	22. Saunta (1.8 %)	
	23. Saur (Seharia Sonr) (0.4 %)	
	24. Khairwar (5.29 %)	
	25. Nagesia (5 %)	

States	Developed or semi-developed	Extremely backward or under developed
1	2	3
Orissa ..	<ol style="list-style-type: none"> 1. Banjara (9.5 %) 2. Bathudi (8.5 %) 3. Bhumij (6.3%) 4. Binjhal (7.1%) 5. Desua-Bhumij (11.7%) 6. Bhuinya 10.2%) 7. Ho (7.1%) 8. Gond (19.3%) 9. Kharia (9.1%) 10. Kisan (8.9 %) 11. Kora (10.5 %) 12. Kondh (7.1 %) 13. Kuli (15.8 %) 14. Matya (6.6 %) 15. Mirdha (10.7 %) 16. Oraon (9.7 %) 17. Rajwar (6.1 %) 18. Sahara (7.9 %) 19. Santal (6.4 %) 	<ol style="list-style-type: none"> 1. Bondo Porja (2.1 %) 2. Juang (0.6%) 3. Kotia Kondh (N. A.) 4. Hill Bhuinya (N. A.) 5. Paudi Bhuinya (N. A.) 6. Koya (0.8 %) 7. Lanjia Saora (?) 8. Bhumia (3.4%) 9. Binjhia (4.3%) 10. Dal (4.8 %) 11. Dharuwa (4.7 %) 12. Didayi (2.7 %) 13. Gadaba 2.7 %) 14. Jatapu (4.2 %) 15. Omantya (3.2 %) 16. Porenga (1.6 %) 17. Parja (3.4 %) 18. Saunti (3.4 %) 19. Bagata (5.2 %) 20. Bhottada (4.3 %) 21. Bhunjia (5.5 %) 22. Holva (5.1 %) 23. Konda Dora (4.5 %) 24. Mahli (5.9 %) 25. Pentiya (5.9 %)
Assam ..	<ol style="list-style-type: none"> 1. Barman (33.9) 2. Boro-Borokachari (19.8 %) 3. Chakma (12.3 %) 4. Deori (33.7 %) 	

States	Developed or semi-developed	Extremely backward or under developed
1	2	3

5. Dimasa (Kachari) (8.9 %)
6. Garo (18.1 %)
7. Hajing (18.3 %)
8. Hmar (23.6 %)
9. Hojai (12.9 %)
10. Kachari including Senwal (25.9 %)
11. Khasi and Jaintiya (24.6)
12. Kuki (15.6)
13. Lakher (20.7)
14. Lalung (20.9 %)
15. Man (Tai speaking) (15 %)
16. Mech (27.1 %)
17. Mikir (12.1 %)
18. Miri (20.8 %)
19. Mizo (49 %)
20. Naga (13.2 %)
21. Pawi (21 %)
22. Rabha (22.7 %)

The table given above shows that in Bihar, Madhya Pradesh and Orissa, the majority of the tribal communities are having lower literacy percentage than literacy percentage of Scheduled Tribe in India (i.e. 8.54 per cent), whereas all the tribes of Assam are having higher literacy percentage. Moreover none of the tribes in Bihar, Madhya Pradesh and Orissa have attained the total literacy percentage of India, i.e., 24 per cent, but

the tribes of Assam namely, Barman, Deori, Kachari including Sonwal, Khasi and Jaintiya, Mech, Mizo, have crossed the national literacy percentage and there are few others, who are approaching the national percentage of literacy.

Thus it is evident that the tribes of India are in different stages of ecological, economic, and educational development. Naturally the problems of education related to

those living in different stages of development will be different and the priority in approaches for tackling the problems will be different. Let us examine each one of problems in relation to education.

II

Ecology and Education

The main problem of education related to the tribes living on hilly, forested and inaccessible areas is lack of schools. At this stage it is very difficult to substantiate this observation quantitatively due to lack of relevant data. However, the Indian Year Book (1964: 640-41, 652-53) relates this point by way of citing examples for India as a whole, Nagaland and NEFA. In India the average area served by a primary school is 3.8 sq. miles, while in mountainous areas having less of communication such as Nagaland the primary school serves area of 13.4 sq. miles. Similarly in NEFA a primary school serves an area 247.5 sq. miles. (Srivastava, 1967: 79). It is true that on the basis of these two figures from Nagaland & NEFA, a broad conclusion cannot be derived for country as a whole but we can at least conclude that the tribal areas particular those which are inaccessible and are located in hilly and mountainous area are not adequately covered by schools. It becomes difficult for the children to go to a school which is situated at a distance of more than 3 miles. At some places it has also been observed that the school has been opened on paper in a particular village which is completely cut off from block headquarters, but in reality the school is held in one road

side village. There may not be only one such case as has been noticed in Batuali Block of Surguja district in Madhya Pradesh. There are several other cases reported from Bihar and Orissa. In Nuagara Block of Orissa also one such case was reported.

The other important point is that the schools located in hilly and inaccessible areas are mostly a single teacher school. Since the area is inaccessible the inspecting staff are not likely to come to village and hence the teacher is most of the time out and the classes are not held regularly. The innocent tribal people do not know as to where the teacher has gone. On return the villagers were told that the teacher had been to Block headquarters and was doing some other work with the Block Education Extension Officer.

For those who are living on the plains and are leading a settled life, the problems of education is different. In such cases the villages have schools because of being compact, and densely populated. In mixed villages, there is no problem for teacher in getting students, but in a village exclusively inhabited by the tribal communities the teachers have to face lot of difficulties in getting required number of students. In villages having Christian and non-Christian tribal population it has been noticed that the Christian parents send their children to school whereas the non-Christian tribals do not send their children to school because the utility of education has been well impressed on the minds of Christian tribal parents. The Christian missions

have been doing work in the field of education since well over a century in these remote areas, while other agencies are relatively new comers in this field.

Again the non-Christian parents are not educated about the utility of education and therefore fail to realise the benefit of educating their children.

In Jashpur subdivision of Raigarh district in Madhya Pradesh, it was observed that two schools—One run by Christian missions and another by Janpad or Tribal Welfare Department, exist in one village. The children of Christian Tribal parents attend the former while those of non-converted Tribal parents attend the latter. The former has greater attendance while the latter is thinly attended.

The nomadic communities mainly depend on forest produce and games and therefore keep on moving from jungle to jungle usually camping in the densest portion of the jungle making the problem of communication still more difficult even to the extent that sometimes it is difficult to locate them. In such circumstances it is not only difficult to have a schools for them but also to locate them.

III

Economy & Education :

Some of the nomadic communities who depend on begging, acrobatic feats, mendicants, blacksmithy, minstrel, puppeteers, etc., are so mobile and their stay at one place is so short that by the time they are actually noticed for purposes of getting their children

enrolled they are on the move. Again the children are trained from very childhood in the profession of the community that they hardly get time for, and to realise the importance of education.

The nomadic tribal communities, as has been mentioned above depend on forest produce and games, concentrate on training their children in developing such skills as may be helpful in developing their economy by way of learning to extract honey from honeycombs, making ropes out of tree barks, collection of edible forest produce and non-edible roots as also learning to kill and trap the wild animals like monkeys (Bihors), hare, wild pig, tiger, etc., which they come across very frequently due to their encampment in thick forests.

The lack of educational facilities in such difficult areas as well as their pre-occupation in collection of food for their day-to-day consumption leave no time and create no desire for education.

Those communities which practise shifting cultivation live on the hills slopes amidst their shifting cultivation land in small settlements which are often distantly located from each other. The produce from their agricultural practices is very small due to rocky soil condition and primitive agricultural technique with the result that they live hand to mouth not even getting two square meals a day for a major portion of the year. Again the process of cultivation necessarily involves all the family members, besides the assistance of co-villagers, for a major portion of the year.

The role of children in their economy is very significant because little yield forces the family to fall back upon the forest produce which is collected by the children side by side the grazing of cattle. Children are engaged in these activities during the day time which coincides with the school hours.

Poverty is the way of life of the shifting cultivators and their time, thought and energy are spent only in activities which are intended to procure the meals for the family. In such circumstances they are left hardly with any time to think about the 'good' of education nor can they afford it, howsoever cheap education may be. They are not in a position to forego the immediate economic gain through a child for a greater gain in distant future after their education.

Among the settled agriculturists children make a substantial contribution to the economic activities of the household. Male children graze cattle while females collect firewood, edible leaves and do the baby sitting. Many anthropologists have argued that if the children are taken away to school the family is deprived of the little income they bring to the parents which is of great value to them, considering their poor economic conditions. But some recent studies have shown that this is not the only and sole cause of apathy of the parents towards education because among the Christian tribesmen with the same economic resources there is a consciousness of utility of education and therefore children are sent to schools while the non-Christian parent is satisfied with traditional

way of life. Again the school hours coincide with the hours during which the children are engaged in economic pursuits. The tribal economy as a whole is centred round the principle of satisfying the immediate needs then to provide for the distant future. Therefore, the children are kept busy in making provision for the immediate economic needs of the family and are not spared to attend school to avail of the better economic prospects in distant future.

Since the settled agriculturists come in contact with the educated and urban tradesmen more frequently as compared to other two sections, there is greater consciousness of the utility of education among than in the other two groups mentioned above. Even the parents are not in a position to provide proper facility to read at night nor do they persuade them to read at home. It is not that they do not feel the necessity of providing light and suitable atmosphere but they are helpless due to economic hardships.

IV

Society & Education—Family, which is the basic unit of the society plays an important role in the education of the children. In fact the learning process starts in the family and the child learns through the process of imitation and suggestion within the family. The family trains the child in social values, norms and customs and to a certain extent in the traditions of the society in the early years of the childhood. Latter slowly when the child grows up he comes in contact with the society and acquires its

folk-ways and mores. Thus in short we can say that the early education in any society comes through the agency of family. This process is called the process of socialization.

Most of the tribal societies in India have special traditional institutions for the purposes of education which can be called youth dormitories. Such dormitories are called by different names in different tribal societies and quite a large number of studies have come out including Elwin's 'Muria and their ghotul'. The function of these dormitories is to impart education in the traditions and customs of the society and prepare the youth for their roles as adult members of the particular society and thus they are the agencies of cultural transmission besides providing a co-operative labour unit enhancing community spirit. (Ambasht, 1970: 40).

Before the advent of the modern system of education this institution caters to the need of education among the tribal societies through verbal transmission. There being no script the formal reading and writing is absent. Although the children gain wisdom in such institutions, they remain illiterate inasmuch as they cannot read and write.

With the changing time, it has become necessary that they learn reading, writing and arithmetic and, therefore, the necessity of schools arose. There are no social barrier, taboos, prejudices prevalent in tribal societies regarding the acceptance of education, yet, there

are some strong disincentives. (Sachchidananda : 1967 : 104). Since modern education was not geared in time with the prevalent tribal cultures the result was that a tribal child was alienated from his society after having been educated and more often than not was lost to the family. The school environment, the attitude of teachers the curriculum and the content of education contributed greatly in this alienation because of their being unrelated to the tribal life and culture. The school going boy becomes a misfit in his own home, detests his parents and their ways of life and is anxious to leave the village for a job in town at the first opportunity. The prevalent education instead of making him a responsible and useful member of his own society forces him out of his traditional occupation and, subsequently, society. "It also detribalises him to a large extent..... Thus a proud and robust son of the soil goes away to seek a low paid job and lead a miserable existence in the dirt and dust of a small-town" (Sachchidananda, 1967: 104).

V

Educational Administration

In tribal areas most of the primary schools do not have any school building and classes are held in residential houses or in some verandahs. As such education among the tribal people has yet to go a long way to be at par with the general population. The enrolment of the tribal students is naturally less. Besides, the teaching aid provided to school are utterly inadequate. The charts, black boards chalk, posters, picture cards, globes,

counting sticks or balls etc. are not provided in the school. In the absence of school building it will also be difficult to store them. Naturally the education of tribal people suffers a great deal.

The other important problem related to the education of the tribal people is of the teachers. It is very difficult to appoint a suitable tribal teacher for the schools located in tribal area mainly because literacy among the tribals is only 8 per cent and there are very few matriculates who can take up the job of a teacher. Since the tribal teachers are not available in required numbers the non-tribal teachers are appointed, who have no proper understanding about the tribal way of life and culture and the problems associated with different tribes. The non-tribal teachers have formed different attitudes about the tribal people. Apart from their belief that the tribal people are simple folk, honest and ignorant, they believe that they are tradition bound, have no change proneness, dirty, and cannot be developed even in hundred years of time. They are dull and do not have quick comprehension. Thus the teacher works with a prejudice does not have the patience to deal with the tribal people with love and affection. Their approach and method of teaching are the same as is prevalent in the schools meant for non-tribal students. Even in schools where the students come from tribal and non-tribal society, the teacher pays greater attention to the non-tribal students because they understand the lesson and occasionally reply in the class. But the tribal children are made to suffer

from a sense of inferiority and are hesitant in giving reply.

The other reason is that the teacher in tribal areas too, are interested in private tuition and they teach the non-tribal students, after school hours and charge tuition fee. The tribal people cannot afford to engage teachers for private tuition. As such the non-tribal teachers do not take interest in the class room teaching and also in the tribal students reading in the school.

It is not that the teachers should be blamed for all these. There are various problems associated with the teachers—such as low salary, lack of incentive to work hard, lack of accommodation for teacher in the village, lack of communication, etc. Since the post of teachers are transferable those who are posted in interior areas take it as a punishment and hence they would try hard for their transfer and in this effort they have not only to spend money but their time and energy are also wasted and the actual purpose i.e. education suffers. The blame is not wholly theirs' as the basic amenities of life are not available to them as a result of which they feel isolated and bored.

In tribal areas mostly the schools are single teacher schools and the teacher's attention is always divided hence he cannot do justice with lessons in any class and the standard of the achievement of tribal students even after primary stage is quite low.

Apart from these the teachers are also involved in the local politics

as well as in some other activities which are not in conformity with their duties as teachers. In tribal areas wherever the tribal teachers are appointed they are mostly christians. Their contact with Christian missions is very frequent and hence they are induced to propagate Christianity in the school for which they are paid some extra money as their remuneration. So they have dual functions as *preacher* and teacher which force them to behave differently with their christian and non-christian pupils. In areas where the teachers are influential because of their association with the Pramukh or Chairman of the Panchayat Samiti or the Christian mission, they act according to their own sweet will. Even in other schools located in tribal areas the teachers do not strictly follow the school hours. School hours are adjusted according to the convenience of the teacher—non-tribal or christian—and they do not consider the convenience of the students and the parents.

Inspection of schools in the tribal areas is inadequate because the inspecting staff has to engage themselves in various other activities like compilation of information and returns etc at block, subdivision and district level and hence the inspection work suffers. Staff is inadequate and the area of operation is so big that even one inspection in a year becomes difficult.

Wastage and stagnation are important factors that impede educational development of the tribal people. This problem is more among the extremely backward tribes be-

cause the incidence of withdrawal of students from school is quite frequent even before completing a particular standard. This is mainly because of the poor economic condition of the tribal people and also because the children lend their services in different economic pursuits to supplement the income of the family. Hence dropouts among tribal students is very high.

One of the major problems of the education of tribal people is that they are not taught through their mothertongue. Hence it is very difficult for the tribal students reading in primary level to learn the regional language and understand the lessons which are taught in the class through regional language. There are various reasons for that. The tribal language or dialects are not developed to the extent that suitable literature could be prepared and no such effort has been made to build up a written tribal literature to preserve the dialect. Also related to this is the problem of script. The tribal dialects invariably do not have a script of their own and hence the difficulty in preparing the tribal literature.

The content of the books are not related to be tribal way of life and is quite alien to them. Such contents do not make reasonable impact on the tribal students and the lessons became uninteresting to them.

VI

The solution of the various educational problems related to ecology, economy, society and administration is to have schools in those areas

where they are lacking. In case of those areas which are cut off and the population is not in viable number we may provide school in every 2 to 3 villages. In such cases the distance required to be covered by the tribal children reading in primary stage should not be more than two miles. The school should be essentially located within a village. Its location should not be such that the children have to cross through dense forest, rivers, burial grounds etc.

For the nomadic communities we may introduce mobile schools provided their place of stay is approachable.

It is also essential to provide school building and equip them with various items of teaching aids and also providing a bell and a clock or a time piece. It is no doubt very difficult to allocate funds for school buildings in all the areas at time, it is desirable, therefore, to create a consensus among the villagers to make voluntary contributions in labour, money and materials. The tribal people will surely come forward in extending their help and co-operation in this endeavour because their christian counter-parts have already constructed a number of schools in different villages of Bihar, Madhya Pradesh and Orissa. Once the school building is constructed it may be handed over to Panchayat Samiti or the Government to meet the maintenance and repair cost in subsequent years.

At times it was reported that the school timings are not maintained

properly because there is no time piece nor there is any bell. The school calendar be chalked out in such a way that it does not clash with the agricultural and other economic activities and socio-religious ceremonies of the tribal people of a particular area. The school hours should be adjusted according to the economic needs of the parents.

As far as teachers are concerned, those working in tribal areas should be given short orientation training in the life and culture of the tribal people. The teachers should be given incentive to learn the tribal dialect of the area in which they are working.

Teachers may be given some incentive in the form of special pay, and special leave in excess of what is admissible to the teachers working in well connected areas, for working in the difficult and inaccessible areas.

They should be provided with accommodation in the village along with news paper and other reading materials so that they do not feel isolated and bored.

All these facilities will ensure increase in enrolment of students, presence of teacher in the village and their being treated as a co-villager. As far as possible teachers should be kept away from local politics.

There should be regular inspection of primary schools by the Sub-Inspector of Schools or Block Educational Extension Officer, and Subdivisional or District Education Officers.

Since poor economic condition of the tribal people poses various problems for their educational development, it is suggested that both the programmes of education and economic development be taken hand in hand. In view of the fact that the tribal children participate in the economic pursuits for the maintenance of the family, it is suggested that stipends or scholarship be given to all the tribal students belonging to educationally backward tribal communities. At primary levels it should be given in kind while at the secondary level in cash. In order to have greater impact of the scheme, the disbursement of the stipend should be timely.

Since the tribal students do not get proper facility of reading at home due to poverty, residential facilities may be provided to upper primary schools so that the tribal children can join these schools without much difficulty. Boarding and lodging may be provided free alongwith reading and writing materials. These facilities are essential for continuing education.

In non-residential school the supply of mid-day meals and milk may be made available. School uniform may also be provided to the students. In this case no discrimination should be made on the ground of the income of parents. By providing these facilities the burden of the tribal parents will be lessened and this will go a long way to minimize economic causes of wastage and stagnation.

In order to enthuse the tribal parents to send their children to

school, it is extremely essential to educate the adult members. In view of this the programmes of adult literacy and adult education should be taken up in tribal areas. For this instead of organising formal adult literacy classes in formal groups of students may be organised and the traditional institutions like youth dormitories may be utilised for this purpose. The programmes of adult literacy and adult education should be linked up with the economy and occupation of the tribal people living in different ecological conditions and economic stages of development. The concept of functional literacy may come in handy in this venture.

Since the educated members among the tribal communities are quite a few, the local youth who are having some knowledge of the tribal customs and traditions should be trained to take up the task of adult education on the right lines. The National Study Group on Adult Literacy and Adult Education of N. C. E. R. T. has recommended the introduction of pilot projects in tribal areas in 1964.

The medium of instruction, at least, in the lower primary stage should be in mother tongue, and it may be switched over to the regional language. For this, action may be taken to produce text-books in tribal dialect and the same may be administered in some tribal areas to see its impact on the educational attainments of the students, increase in enrolment, reduction of wastage and stagnation etc.

The content of text-book should be such that it includes lessons on cultural material such as local geography, life sketch of tribal heroes and national heroes, a little of every day science with examples from the local environment, so as to create a desire for higher education. However, it may be stressed that the basic course content should be uniform for tribal and non-tribal students so that when a tribal student takes up higher education he is not at a loss to understand the course content of higher classes. However, the basic aim of national integration should not be lost sight of in preparation of such text-books.

In the absence of scripts of tribal languages, the script of regional language should be adopted so that learning of regional language is facilitated and the tribal population is slowly and gradually integrated with the regional population.

Education is the prime factor in achieving all round development. It has been observed that educationally advanced communities have made significant achievement in their economic and technological development. They have accepted the programmes of tribal welfare and development more readily and have been successful in getting employment in

occupations other than agriculture. So in order to make the other development programme a success, it is essential that educational development is given priority.

All the facilities that are provided for educational development of tribal communities should be given on a differential basis, i.e., the tribes who are extremely under developed should be given more assistance than those who are developed or semi-developed.

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Study of Rana Foot.

INTRODUCTION

The Ranas are a group of Oriya speaking people inhabiting different parts of Koraput district of Orissa. They are now within the fold of Hindu religion. They occupy superior position in social hierarchy than the Paroja, Godaba and other tribal groups of population. The Ranas claim to be descendants of Ranjit, a famous warrior of Orissa. They cannot give detailed information regarding their migration from the plains. They have no doubt migrated from the plains and assimilated certain tribal traits. They have acquired agricultural land from the tribal people. They are mostly agriculturists and economically appear to be in better condition than the Godabas.

In the present paper an attempt has been made to study the foot contour of the Ranas. The data is collected from 87 adult males and 78 adult females from eight different villages. Foot contours were traced in papers and then they were analysed. The method of collection of contour was same as that described by Sarkar (1958).

Hawkes in (1913-1914) opined that there is a sexual variation in relative length of first and second toe which is genetic in nature. 'F' type of foot occurs more frequently in females than in males.

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Sarkar (1958) suggested that 'O' type of foot is less frequent and there is dominance of 'T' type of foot over 'O' type.

In the present paper the metrical characters studied are as follows:— Length of the foot (from acropodion to Petesion); Breadth of the foot (from metatarsale tibiale to metatarsale fibular), length Breadth Index of foot and Hallux divergence angle. The frequencies of the three types of foot, namely T, F, and O have also been studied. The present data has been compared with some mongoloid tribes of Assam, Santal, Mundari, Juang and Oraons of Orissa and also with a backward caste Hira from Assam.

The Data

A. RELATIVE LENGTH OF 1ST AND 2ND TOES

On the basis of relative length of first and second toe three types of foot are observed. These are as follows:—

- T. Type where the first toe is longer than the second toe.
- F. Type where the second toe is longer than the first toe.
- O. Type where first and second toe are of equal length.

The frequencies of these three different types of foot among the

Rana male and female are presented in Table 1.

TABLE 1
Relative Length of 1st and 2nd toe of Rana Foot

Name of Individual	Left			Right			Combined		
	T	F	O	T	F	O	T	F	O
	%	%	%	%	%	%	%	%	%
Male—87	87.35	3.45	9.20	80.5	5.75	13.75	80.93	4.6	11.47
Female—78	9.90	3.82	1.28	83.3	1.28	15.42	89.10	2.55	8.35

From Table 1, it is observed that T type of foot occurs more frequently in both the sexes. But there is slight variation in propor-

tions of different types of foot. 'T' type of foot occurs more among the female whereas 'F' and 'O' type are found more in males.

TABLE 2
Relative Length of 1st and 2nd toe in Different Population

People	Sex	Number	'T'	'F'	'O'	Author
Rana	Male	87	83.93	4.6	11.47	Present Study
Hira	Male	76	88.81	3.28	7.89	Das and Das
Khasi	Male	56	87.81	7.14	5.35	Das and Ujir
Rabha	Male	300	87.50	16.50	13.83	Das and Ujis
Santal	Male	44	69.66	11.36	3.41	A. Pal
Mundari	Male	45	85.23	13.33	5.56	Sarkar
Juang	Male	43	81.11	3.49	4.65	Sarkar
Oraon	Male	44	91.6	5.68	1.14	Sarkar
Pahira	Male	29	79.31	12.07	8.62	Sarkar
Rana	Female	78	89.10	2.55	8.35	Present Study
Hira	Female	105	87.61	7.61	4.76	Das and Das
Khasi	Female	62	76.60	8.06	15.31	Das and Ujir
Rabha	Female	300	72.66	18.33	9.00	Das and Ujir
Santal	Female	67	83.58	8.96	7.46	A. Pal
Mundari	Female	9	83.33	11.11	5.56	Sarkar

In Table 2, the present data have been compared with the Khasi, Rabha, Hira, Santal, Mundari, Juang, Oraons and Pahira. From Table 2, it is observed that the Rana male exhibits higher frequency of 'T' type of foot than the Santal, Juang and Pahira and lower frequency than the Hira, Rabha, Khasi and Mundari. But the Rana females possess higher frequency of 'T' type of foot than the Hira, Khasi, Rabha, Santal and Mundari. In frequency of 'F' type of foot, the Rana male does not differ much from the Hira, Juang and Oraon

but shows considerably lower frequency than the Santal, Mundari and Rabha. The Rana female exhibits lowest frequency of 'F' type of foot. In frequency of 'O' type of foot both male and female Rana are close to the Rabha male and female and differ considerably from other tribes.

B. Homo and Hetero Types

The frequencies of various combinations of the homo type and hetero type as found in different population of India are presented in Table 3.

TABLE 3
Frequency of Homo and Hetero Types of Individual

People	Sex	No. of Individual	T. T. %	F. F. %	O. O. %	T. F. %	F. T. %	T. O. %	O. T. %	F. O. %	O. F. %
Santal	Male	44	79.55	4.55	2.27	11.36	..	..	..	2.27	..
Rana	Do.	87	75.70	1.15	4.60	3.35	1.15	8.05	1.15	1.15	1.50
Mundari	Do.	45	73.33	6.67	2.22	8.69	22.20	22.2	2.22	..	2.22
Hira	Do.	76	80.26	..	1.31	2.63	2.63	9.21	1.31	1.31	..
Juang	Do.	43	86.05	..	..	..	1.72	2.58	..	0.86	..
Khasi	Do.	56	80.35	3.57	..	3.78	3.57	8.92	1.78	1.78	..
Oraon	Do.	44	88.64	2.27	..	2.27	4.54	2.27	..	..	..
Rabha	Do.	300	60.33	10.66	5.66	3.00	4.00	3.66	4.33	4.33	..
Pahira	Do.	29	75.86	6.90	8.90	3.45	3.45	..	..	0.45	..
Rana	Female	78	80.75	1.28	1.28	..	2.56	14.10	..	..	..
Hira	Do.	105	80.95	1.90	0.95	5.70	2.85	1.90	0.95	0.95	..
Khasi	Do.	62	69.35	3.22	6.44	1.61	6.44	6.44	1.61	1.61	..
Rabha	Do.	300	63.00	11.00	2.66	3.66	7.00	4.33	2.33	2.33	..
Mundari	Do.	9	77.78	11.11	..	..	..	..	..	..	..
Santal	Do.	67	77.71	5.97	..	..	2.98	..	..	..	..

Nine different combinations are observed. Among these, the homo-type TT occurs in highest frequency in all the population. Among the Rana, the female (80.75 per cent) exhibits higher frequency of TT than the male (75.70 per cent). Next highest frequency is exhibited by TO in both the sexes, the male (8.05 per cent) exhibits slightly lower frequency than the female (14.10 per cent). This is followed by FT in female and by OO and TF in male. TF, OT, FO and OF are totally absent in female. In male OT, FO and OF are observed almost in the same frequency.

In respect of the frequencies of different homo and hetero type, the Rana male differ from the Hira, Juang, Khasi, Oraon and Rabha. They are somewhat nearer to the Mundari and Pahira. The Rana

female differ considerably from the Khasi, Rabha, Mundari and Santal. They are somewhat close to the Hira female.

C. Anthropometric Characters

The four anthropometric traits studied are the foot length, foot breadth, foot index and hallux divergency angle. All the three measurements are taken on the tracings of foot contour. Foot index is calculated for each foot and then mean is calculated. The mean and range of the four anthropometric characters are presented in Table 4. Table 5 shows the values of 'T'-test of significance between the left and right foot. In Table 6, the values of 'T' test of significance for hallux divergency angle and foot index between Rana male and female are presented.

TABLE 4
Mean values of the Characters of Rana foot

	Left Mean±S. E.	Right Mean±S. E.	Combined Mean±S. E.	Range
Foot Length (in Cms.)				
Male	27.72±0.157	24.73±0.152	24.72±0.116	20.1=27.3
Female	22.81±0.128	22.79±0.138	22.80±0.08	19.4=25.9
Foot Breadth (in Cms.)				
Male	9.94±0.092	10.0±0.077	9.97±0.061	8.2=11.4
Female	8.87±0.072	8.84±0.07	8.85±0.131	7.4=10.2
Foot Breadth length Index				
Male	40.15±0.279	40.60±0.214	40.375±0.17	33.8=48.0
Female	39.05±0.27	39.40±0.26	39.22±0.118	34.7=43.2
Hallux divergent Angle				
Male	6.64±0.14	6.34±0.136	6.49±0.11	3.75=11.0
Female	6.58±0.08	6.67±0.126	6.625±0.08	4.0=9.0

TABLE 5

Difference of Mean (Left—Right) 't' Test of significance

	Rana Male Rt. Lt		Rana Female (Rt. Lt.)	
	Difference	't'	Difference	't'
Foot length	0.01	0.46	0.02	0.106
Foot Breadth	0.06	0.505	0.03	0.30
Foot Index	0.45	1.295	0.35	0.935
Hallux divergent	0.30	1.54	0.09	0.585

TABLE 6

Difference of mean (Male—Female) (Inter sex) 't' test of significance

Foot Breadth—Length Index		Hallux divergence Angle	
Difference	't'	Difference	't'
Left 1-1	2.84*	0.06	0.349
Right 1-2	3.56*	0.33	1.78
Combined 1-155	4.65*	0.135	0.985

*Significant at 1 P. C. level

From Table 5, it is observed that the right and left foot do not differ much in both male and female. It is observed from Table 6, that the Rana exhibit significant difference

in foot index between male and female. But no sexual variation is observed in hallux divergence angle.

TABLE 7
Comparison of Means

	Foot length in Cms	Foot Breadth in Cms.	Foot Index	Hallux divergent Angle
	Mean±S. E.	Mean±S. E.	Mean±S. E.	Mean±S. E.
Male				
Rana	24.72±0.116	9.97±0.061	40±0.17	6.49±0.11
Hira	24.56±0.12	10.05±0.06	41±0.15	7.48±0.13
Khasi	23.58±0.11	10.07±0.06	42.43±0.28	7.00±0.01
Rabha	23.97±0.07	9.97±0.05	40.74±0.13	6.73±0.06
Female				
Khasi	21.95±0.11	9.37±0.05	41.98±0.27	7.01±0.11
Rana	22.80±0.086	8.85±0.13	39.22±0.18	6.62±0.08
Hira	22.63±0.10	9.15±0.05	40.31±0.13	7.27±0.11
Rabha	22.02±0.07	8.74±0.03	39.58±0.13	6.59±0.06

TABLE 8
Difference of Mean—'T' Test of Singificance (Inter race)

	Foot Length		Foot Breadth		Foot Index		Hallux Divergence Angle	
	Diff.	'T'	Diff.	'T'	Diff.	'T'	Diff.	'T'
Male								
Rana-Hira	0.165	0.083	0.08	0.128	0.631	*2.73	0.99	*5.75
Rana-Khasi	1.145	*7.15	0.10	0.16	1.061	*3.21	0.51	*5.24
Rana-Rabha	0.755	*5.6	..	..	0.365	1.67	0.24	**1.98
Female								
Rana-Hira	0.17	1.29	0.395	*2.82	1.11	4.97	0.645	*4.7
Rana-Khasi	0.85	*6.1	0.515	*3.78	2.76	0.85	0.385	*2.8
Rana-Rabha	0.78	*7.05	0.115	0.855	0.36	1.62	0.035	0.34

*Significant at 1 P. c. level

**Significant at 5 P. c. level

In Table 7, the mean values of various anthropometric Characters of the Rana, Hira, Khasi and Rabha are presented. In Table 8, the difference of the various means in different groups and the values of 'T' are given.

From Table 7 and Table 8 it is observed that the both Rana males and females have longer foot than the Hira, Khasi and Rabha. But the difference between Hira and Rana in both the sexes is not significant whereas the differences between Rana and Khasi and Rana and Rabha are significant. The difference in foot breadth from the

Hira, Khasi and Rabha. But the Rana females possess significantly narrower foot compared to the Hira and Khasi. In foot index the Rana male differ significantly from Hira and Khasi but the female differ only from the Hira. In hallux divergence angle the Rana male differ significantly from all other groups but Rana female differ from the Hira and Khasi.

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Note on "Sitra", Nomadic Artisan Caste.

BASANTI RATH

Sitra is an interesting nomadic community of Orissa, which is famous for their circled method of manufacturing brass figurines. Very little is so far known about this primitive artisan caste who confine their movement mostly in tribal areas, partly because they can procure their fuel for their manufacture more readily in such areas and mainly because they get a ready market for their products amongst the tribal communities. Thurston writing in 1909 considered it to be a synonym of Panons. Quoting from C. F. Mecartie he writes "The Panons, also known by the title of Dombo or Sitra in some parts, are supposed to be Paraiya (Telugu Mala) emigrants from the low country. Their profession is weaving or brass work.....(In the Madras Census Report 1901 it is mentioned that the Sitras are supposed to be the progeny of Kondh man and a hadi woman who manufactured the brass rings and bangles worn by the Kondhs.) (Castes and Tribes of Southern Indian-E. Thurston P. 73)-Vol.VI

Social organisation

The Sitras are patrilocal and patrilineal people. They are divided into a number of clans and each

clan holds as sacred a particular object which is regarded as the clan totem and it is never destroyed or injured. The Sitra Caste is endogamous but the clans are exogamous. Each clan has its Bhai clans and Bandhu clans. Sitra can marry in Bandhu clan, but the marriage in Bhai clan is prohibited. No Sitra can marry outside his caste and within his or her own clan. Monogamy is the common rule prevailing in the sitra society so far as marriage is concerned. Polygamy occurs very rarely. Levirate, sororate, cross cousin marriages are prevalent in the Sitra society. A woman is liable to be divorced by her husband if she is found sterile. The divorced wife can marry any where in her Bandhu clan, if she likes. The family which is the basic unit of the social organisation is mostly of nuclear type. There are a very few joint families in the Sitra society. The father always acts as the head of the family. So long as the father is alive no one can claim a share from the property. After the death of the father, the sons may divide the property among themselves if they so desire and the eldest son is given an extra share. Membership in a family is acquired by birth but the girls after marriage cease

to be the members of their parental family. Descent is traced through the male line and property is inherited by the sons only.

Life cycle

The most important stages of life are birth, marriage and death. After the birth of a child the family and its kin group observe birth pollution. A woman after delivery is not allowed to do any house-hold duty for a period of twentyone days. In the twenty-first day *ekoisia* ceremony is held. In course of time the child grows up and acquires more and more of responsibility. No special ceremony is held for the boy's initiation. But the girls after the first menstruation, are kept secluded in a separate room for a period of seven days and after that period is over, she takes a purificatory bath and offers worship to the local God or Goddess. After this she becomes eligible for marriage.

Marriage is the most important stage in the life cycle of the *Sitra*. The bride is chosen through the mediator. The groom's party comes to bride's house with liquor and is entertained with liquor and food. The elders of the village fix an auspicious day for the marriage. On the appointed day the groom's party comes to brides house with liquor (*mada gandara*.) The woman play an important role in the marriage ceremony. The ceremony is held with recitation of mantras. At night the bride's father entertains the villagers as well as the groom's party with a feast. Next morning groom's party return with the bride and the woman relatives

of bride also go with them. The bride's party returns to its village the same day. Child marriage is not prevalent among the caste.

When a man or woman dies the clan members observe death pollution. The death pollution is observed by the close relatives of the deceased and by the clan members for a period of eleven days. On the 11th day liquor and meat is offered to the departing soul and the presiding deity of the family and the same is partaken of by the villagers.

Festivals—

The main festivals observed by the *Sitra* are *Amba gundi*, *Dhana Naakhai*. On these occasions they clean their houses and discard the used earthen pots from the kitchen and use new one's instead. They observe *Ambagundi* on the tenth day of *Phalguna* and *Nuakhai* on the *Bhadra* purnima or *Phalguna* purnima. On these two occasions they offer white chicken, white goat and liquor, to their presiding deity (*Ista Debata*). Then they take meat and liquors. During these festivals men, women and children participate in dancing.

Religion—

The *Sitras* have firm belief in 'Mahaprabhu' or high god whom they believe to be the creator of the universe. They have belief in rebirth and think that one who commits sin, has to take his rebirth as a low animal. They believe in the existence of ghosts and spirits and consequently offer food to their ancestors on festive occasions.

Dress and ornaments—

The dress of *sitra* is very simple. Women wear saris which they wrap round the hip and throw one end on the shoulder. No undergarment is used along with the sari. *Sitra* men generally use a small piece of dhoti.

Sitra women use various ornaments such as *Nakmachlu* and *Nuluk* on nose, *kanpasa* on the ear and necklace of bead in the neck. They wear ring in the fingers and toes. These are made of gold, brass, silver or bronze.

Language—

The *Sitra* speak a modified form of *Kondh* language with an admixture of *Oriya*. During recent times the number of *Oriya* words have increased in their vocabulary.

Occupation—

The main occupation of the caste is preparation of brass ware. They never cultivate the land. They sell their ware on cash payment. They buy old materials for Rs. 6 per Kg. and sell the new materials at rate of Rs. 12 per Kg. Generally they prepare articles like *Rukha*, *Dipa*, *Jagara*, *Gaja laxmi*, Water pot, Incense burner, Brass pitcher, Bell, Utensils, etc.

Method of Manufacture—

The process by which they prepare these materials is very peculiar and is called the "Cire perdue or waste wax process." The *cire perdue* or waste wax process is a method of casting metal by

means of an external mould in one piece, from which the wax of the model can be removed only by melting. A model if small may be cast solid, but for a hollow cast a core or mould for the internal surface of the metal must be provided. The model is constructed in wax over a previously prepared core. The core is made up clay and pounded brick. Bee wax coating over it is done by wrapping bee wax rods over the core. For the preparation of wax rods they use 'Janta'. *Janta* is a peculiar type of implement. A hole is made in the centre of a flat wood, the ends of which are slightly narrowed in order to hold without any trouble. Besides this a cylinder made of brass in the base of which a small iron plate having many holes is kept. This plate can be removed at the time of cleaning. They call this iron plate as *chaki* and the cylinder as *Nahala*. In the *Nahala* bee wax is taken and the pressing is done by means of another implement. This pressing implement is made of wood having a projection in the centre. The diameter and length of the projected wood is equal to that of *Nahala*. They insert this projected end into the *Nahala* and press it, keeping in between the thighs. Thus wax rods come out from the holes of the *chaki*. These are allowed to dry slightly and then used for wrapping around the core. The core of clay is provided with suitable vents. The wax wrapping being completed, a thin layer of fine clay is painted over it, and further layers, now mixed with powdered brick or other materials to afford porosity, are added until the mould is of sufficient thickness.

The whole external mould is thus built up in one piece. It is now ready for baking. The furnace which is used for baking has a pit in front. By means of hide bellow air is pumped into this pit. This bellow is operated by hand. The bellow or the bag is made of hide having two wooden handles or stricks and a hollow wooden pipe is fitted in one corner. Keeping this pipe inside the pit and holding the handles when the person presses, the air inside the bag enters into the pit and next to the furnace. The furnace is filled-up with wood, over the wood the prepared materials are kept. They are all arranged to incline in one plane, for each piece of wax must be so placed that it will drain out of the mould after melting. The mould is then baked and ready for the metal. When this has been cast the mould is broken off, all burners and vents are cut away and the rough surfaces are chased. In

works cast by the piece moulding process, a little metal may escape into gaps between in pieces of mould and these webs must be removed when the surface is chased. With cire perdue work there are no such webs, though of course the scars left by the burners and vents must be removed. These are then polished by means of oil.

Conclusion—

The Sitras are well known for brass work. They have not given up this age old occupation though the income they derive from it is meagre.

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Caste Structure, Occupational Mobility and Social Change.

T. M. DAK

I. Introduction

Rural communities in India are undergoing rapid socio-economic transformation under the impact of industrialisation, modernisation, urbanisation, culture contract, modern education, development programme and other governmental and legislative efforts. It has also been realised that the development of democratic society and modern economy in place of caste society and backward, rural self-sufficient economy could not take place because of the relatively static nature of the society. But since different forces are operating in the evolution of the Modern Indian society, the traditional caste and class structure, occupational and ritual pattern and value system have greatly been affected, which jointly may create environment conducive to the development of a planned and desired society. Methodologically, the changes in the traditional occupational and economic structure of society has to be taken into consideration in order to study how any change in it may affect the social system as a whole, as all the aspects of society are interlinked and interlocked. We know that occupation holds a key position in the matrix of social, economical, political and ritual relationships in rural society. In the context of rural communities this is more true and occupation is

strategically integrated. Therefore any change in traditional occupational structure may become a vital force to bring about changes in social structure as a whole. Thus the study of dynamics of occupation in rural areas constitutes a vital dimensions of the study of social change.

The objectives of the present study can be subdivided into the following sections:—

- (1) To find out trends of change in occupational pattern.
- (2) To find out extent, nature and intensity of the dynamics of occupational mobility.
- (3) To study the factors which determine occupational mobility.
- (4) To assess the impact of occupational mobility on social change.

II. Research Procedure

The different terms and variables used in this study were first defined and codified. "Occupational mobility" has been defined as deviation of a person from the traditional occupation to another occupation which is traditionally associated with other castes, or to no castes

in particular, i.e., secular occupation. Four major categories of mobility are recognised:—

- (1) Traditional occupation followers.
- (2) Traditional occupation climbers.
- (3) Traditional occupation descenders.
- (4) Traditional to secular occupation changers.

In the above classification, the followers, climbers, and descenders, refer to occupation associated with different caste groups, whose higher and lower castes have more or less fixed and clear referents. Secular occupation refers to those emerging as a result of technological and industrial developmental, urban contact and governmental and other developmental programmes. "Social change" has been defined as breakdown of the traditional balance and equilibrium established between occupation and caste.

Sample—This study was carried on in a village New East Hope Town, of Dehra Dun District (Uttar Pradesh). The village has a population of 1250 persons belonging to 13 castes at different levels. Five numerically dominant major castes, forming 2 broad-based strata of higher (Brahmin and Gurkhas) and lower (Kuril, Kori and Raida) levels were selected for the study. Only male subjects were included in the sample, the age being restricted to 20 to 40 years. For this purpose the 1960-61 Census Report was used. Stratified Random sampling was utilized for constituting the 10 per cent sample.

Instruments Used—A schedule containing detailed questions was prepared in advance, and it was pretested before going into the field.

The information called for by the various items in the schedule was collected by means of personal interviews with the members of the study sample.

III. Findings

Occupational structure of the village showed the following categories: (1) Labour in the tea factory or tea garden, (2) Agriculture, (3) Science, (4) Miscellaneous.

Work in tea factory or tea garden accounts for 50 % of the earning population. The next major occupation is agriculture.

The present study sought to trace the occupational pattern over three successive generations, including the present generation represented by the interviewer, the interviewer's father and the interviewer's grand father. A list of occupations considered to be traditionally related to the different castes, which was prepared in consultation with some of the village elders was taken as the base for studying the deviation in occupation occurring over three generations. The main findings with regard to the deviation from traditional occupational pattern are summarized below:—

- (1) Rigid occupational structure based upon caste factors appears to be crumbling down. In the second generation, 87.7 % had changed from profession of their father, in the third

generation, 100% had changed from grand father's profession.

- (2) Deviation from the traditional occupation is more frequent among lower castes than among higher castes. In the first generation of grand fathers' 73.3% were following their traditional occupation, among both high and lower castes. In the third generation, while 33.3% among the higher castes were still following their traditional profession in the lower castes all the 100% had changed their traditional professions.
- (3) It was found that both higher and lower castes were moving more towards new or secular occupation, instead of rather climbing or descending along traditional occupational ladders. The speed of change from traditional to secular occupation is greater among the lower castes. It has increased to 350% among lower castes compared to 200% increase among higher castes.
- (4) The process of change of occupation and replacement of it through traditional occupation of other castes is not frequent. Out of all interviewers, 60 per cent are traditional to secular occupation changers, 26.7 per cent are traditional occupati on

followers and 13.3 per cent tradition occupati on descendents.

- (5) No cases of traditional occupation climbers were observed among the higher castes, but among lower level castes the number of such cases has increased to 200 per cent.
- (6) Intensity of mobility is higher among higher castes. Only 40 per cent of the sample have changed their occupation or job. Out of it, 26.7 per cent belong to the higher castes which constitute only 40 per cent of the total sample.
- (7) From the point of the geographical mobility, the rate among higher castes is higher than among the lower castes. The average number of places where each informant has performed his occupation is 1.7. Among high castes it is 2.5 and among the lower castes it is 1.1.

Factors determining occupational mobility—With a view to analyse the underlying factors in occupational mobility, the variables of caste, age, education, and income were studied. The results of the analysis are as follows—

- (1) Economic factor is predominant in all cases of occupation changers, for both higher and lower castes. As many as 62.5

- per cent of the sample gave first priority to low income as the reason for change in the occupation or job. Security of occupation or source of income came next.
- (2) Among all the cases who want changes, the factor of low income holds first priority. It is also interesting to note that 100 per cent of the subjects of the lower castes who do not want to change their profession, attach a feeling of security and satisfaction with their present occupation although they are not getting good income from it.
 - (3) The slow rate of mobility may be attributed to the fact that about 60 per cent of the sample expressed satisfaction with their present occupation or job, and did not want to leave it. Among higher castes 16.7 per cent expressed a desire to change occupation; the corresponding figure among the lower caste was 55.5 per cent. Age also seems to be positively associated with the desire for change as 80 per cent from the higher age group as against 50 per cent of younger age group want change in their present occupation.
 - (4) With regard to the criteria for selection of occupation of their sons economic factor has been viewed as the most dominant, 80 per cent of the subjects giving it first preference. Lower caste members are comparatively more conscious of the need to raise their status by changing their traditional occupation. Out of three preferences, none from the lower castes has given any preference to their traditional occupation. Security of occupation after the source of income is the factor given second preference.
 - (5) There was direct relation between age and traditional occupation changers and an indirect relation between education and changes in occupation. Among the persons who changed their occupation, 100 per cent come from higher age group of 30-40 years and 66.7 per cent were illiterate. Among the younger age group of 20-30 years, none has changed his occupation. Similarly out of literates and educated persons only 33.3 per cent have changed their occupation, while in case of illiterates, 66.7 per cent have changed their occupation.
 - (6) Caste status seems to have a bearing on occupational mobility—higher castes being more mobile. Economic factor found dominant in the change of occupation for lower castes, higher age group and illiterates.

IV. Discussion

Analysis of the data reveals that traditional occupational structure is undergoing a rapid change which is accompanied by other changes in social structure, class system, caste relationships, values and attitudes. The analysis of occupational structure, in the context of caste hierarchy reveals certain interesting facts regarding trends of change, from which the following conclusions may be drawn:—

- (1) Higher castes are not necessarily having traditionally high occupation and lower castes tend to deviate completely from their traditional lower occupations. The balance and equilibrium of caste and occupation have been disturbed.
- (2) Rate of deviation from traditional occupation is much higher in lower castes than in higher castes. It seems that members of lower castes are very conscious of the desirability of raising their status by deviating from their traditional occupations which were considered as low.
- (3) There is a gradual increase in the adoption of secular occupations both among higher and lower castes. Such cases are much more frequent than the traditional occupation climbers or descenders.
- (4) The rate of traditional to secular occupation changes is much higher in lower castes than in higher castes.
- (5) It is also found that lower caste persons are much more desirous to change their present occupations than the higher castes. All these indicate the rise of lower castes in the occupational hierarchy.
- (6) Economic incentive is operating more intensively than any other factor in occupational mobility and change.
- (7) There is a positive correlation between the age and occupational changes. Higher the age group the more have they changed their occupation or expressed their desire for change.
- (8) There exists a negative relationship between literacy and changes in occupations. The ratio of occupation changes is higher among the illiterates than the literates.

These major trends in the occupational structure of the community studies are indicative of the changes that are coming in the social system. The rise of lower castes in the occupation hierarchy is a significant phenomenon. The members of lower castes are neither performing their traditional so called lower occupations, nor they have any respect for their traditional occupations. In other words they are coming nearer the higher

castes in occupational hierarchy. On the other hand, higher castes are also trying hard to maintain their existence and they are adopting more and more lower occupations or non-traditional occupations. In this way they are coming nearer to lower caste in occupational hierarchy. As such different castes are coming on a common platform of similar occupations. In the present study both the caste groups are found working together in agriculture and tea factories. In addition to their caste affiliations, class consciousness is also developing in different levels of castes performing some occupation and class feeling of belonging to the same occupational group is gradually growing. New additional relations are developing which gradually minimise the caste oriented relations. In the present study it is found that the social distance between different caste members performing the same occupation and working together is gradually decreasing. Almost all persons except a few of higher castes are found to have close relationship with other caste members, although marriage relation is somewhat difficult and considered objectionable.

Values and attitudes towards occupations are also undergoing rapid and drastic changes. Most of the lower occupations are now not regarded as pollution of higher castes as they have suggested several such occupations which were traditionally being performed by lower castes. Occupations are preferred on grounds of income and interest and not on the basis of traditional superiority or inferiority. Preference given for several

lower occupations and non-traditional secular occupations indicates the significant change in values of higher castes. The desire for raising the status through change in traditional occupation among the lower castes is also remarkable. A new force is coming up in the form of lower caste aspirations which were traditionally static and immobile with respect to occupation and status.

The other significant change noticed is the change in values and attitudes regarding determinants of social status of person. Formerly the status was determined by the level of caste one belonged to or level of occupation one performed but here the opinion expressed indicates that the factors of income, education and power are getting higher priority. Thus, the determination of status is gradually shifting from level of caste and occupation to level of income, education and power. In other words the trend is towards significant change in traditional class structure based on caste and occupational distribution. In its place a new class structure based on income, education and power, is bound to emerge if these variables are going to determine the status of individuals and groups. If such a clear structure develops the rigidity of casteism would be considerably reduced.

The present study throws light on the fact that indirect methods to bring about change in traditional social system is far better than direct methods. India is passing through the age of rural reconstruction. It wants to bring about change through democratic and

planned way. Exercise of democracy is conditioned by the type of social structure a nation has. The traditional structure of rural India cannot be said to be conducive to the democratic life. Several governmental and legislative efforts were made to create environment conducive to this change over by giving the fundamental rights of equality, liberty and fraternity to people. Caste differences were threatened by law. Several reform movements have also been launched to remove the caste differences. All these direct methods to abolish the caste differences have not been fully successful. The present study throws light on the use of the indirect methods which, without directly attacking caste system, nevertheless have an impact upon it, through occupational changes. The results indicate that the emphasis should be given more on

providing new and non-traditional occupational situations, in which different caste members may come together and develop class integration. Therefore the workers should not give much emphasis to preach the evils of castes, because it may create antagonistic attitudes in villages, but provide them ample opportunities where different castes may come together and work. It will bring steadily, sure and permanent change in the caste structure and its rigidity.

The results cannot be generalised to all the villagers as the village under the study was not a representative one. Importance of the study lies in the trends of changes which have come to notice. The results can be applied on those village communities having more or less the same features.

A Study of Foot of Sasana Brahmin of Orissa.

SAILABASINI MISHRA

Introduction—

The data were collected in 1970, in course of anthropometric investigation among the Sasana Brahmins of Orissa. The data consist of 100 adult male and 100 adult female foot contour.

The Sasana Brahmins of Orissa are an endogamous subdivision of the Brahmins. They are found in different parts of Orissa but are concentrated in Puri district. They are found also in Koraput, Ganjam, Sambalpur, Dhenkanal and Balasore districts. They claim the highest status in the caste hierarchy and also among other Brahmins of Orissa.

The data were collected from the following villages—

Bira Harekrishna Pur, Bira Narasinghpur, Bira Pratappur, Sri Ramachandrapur, Pratap Purusottampur, Bira Purusottampur, Kanhaibidharpur, Biswanathpur, Balabhadrapur, Sasana Damodarpur and Bir Govindpur.

The present article deals with the frequencies of the 3 types of foot namely T, O and F as found among the Sasana Brahmins of Puri district. The frequencies of homo

and hetero types have also been calculated. Metric characters like foot length, foot breadth, foot index, hallux divergence angle of foot have also been taken into account. The present data have been compared with the data on mongoloid tribes of Assam, Santal, Mundari, Juang and Oraons of Orissa and with a backward caste Hira from Assam and also with another backward caste Rana from Orissa.

On the basis of relative lengths of the toes the human foot has been divided into following 3 types—

- (1) $1 > 2$, Where the hallux is longest.
- (2) $2 > 1$, Where the second toe is the longest.
- (3) $1 = 2$, Where the hallux and the second toes are of equal length.

Minami in 1952 denoted the first type by the letter T (Tibial), the second type F (Fibular) and the third by O.

The contour method has been applied for the purpose of study. The method of study is same as described by Sarkar (1958) and he suggested that the frequency of O

type of foot is less in females than males and T type of foot is dominant over O type. Hawkes (1913-14) suggested that there is a sexual variation in relative lengths of 1st and 2nd toe, which is genetic nature. F type of foot occurs more frequently in females than males.

The Data

A. *Relative length of the first and second toe.*—It is observed from the Table 1 that the T ($1 > 2$) type of foot occurs in a higher percentage among the females than the males. The F ($2 > 1$) and O ($1 = 2$) types are reverse to the T type. When the two feet are compared in both the sexes T type has a higher frequency for the left foot than in the right. As regards the F type in the males, the percentage being higher in the right foot than in the left foot. But in case of female the percentage is higher in the left foot than the right foot. Among the males the O type has higher frequency in the left foot and in the females this is just the reverse.

The present data have been compared with the Khasi Rabha, Hira, Santal, Mundari, Juang, Oraons, Pahira and Rana. The frequency of T of Sasana Brahmin male is lesser than all the population in Table 2, except the Santal. F is equal with Mundari and lesser than the Rabha only. O is equal to Pahira and Hira but lesser than Rabha and Rana. In case of female it has been observed that the frequency of T type among the Sasana Brahmin is equal to that of Hira and lesser than that of Rana. F type of foot among the Sasana

Brahmin has equal frequency with the Hira, Khasi and Santal and less than that of Rabha and Mundari. Similarly O type is found to be equal with Mundari and Hira.

B. *Homo and Hetero types*—In Table 3, the frequencies of the various combinations of the homo and hetero types of foot in different populations in India have been presented.

The homo type TT occurs in the highest frequency among both the sexes of Sasana Brahmins, the percentage being 70 per cent in male. The next highest frequencies, in descending order, in the males are FT (8%), FF (5%), TF and FO (4%) OO and OT (3%), FT (8%), TO (2%), OF (1%).

Among the females also the highest frequency is observed by TT type of Foot (84%). The next highest is observed by FF (4%) followed by OT (3%), TF FO and OF exhibit equal frequency.

When the Sasana Brahmin data are compared with other population, it is observed that both male and female differ considerably from all the other groups. The males are closer to the Mundari and females are close to none.

C. *Anthropometric character*—The following anthropometric characters have been taken into account:—

- (1) Foot length
- (2) Foot breadth
- (3) Length breadth Index
- (4) Hallux divergence angle (Foot angle),

These measurements were taken on the tracings of the foot. The length breadth index has also been calculated. The mean values of the above characters have been presented in the Table 4. Table 5 shows the values of 'T' test of significance between the right and left foot.

It is observed from Table 4 and Table 5 that, there is not much difference in foot length and foot breadth. But both male and female exhibit bilateral differences in foot index.

From Table 6 it is observed that both male and female Sasana Brahmin possess longer feet compared to all other groups. The mongoloid tribes of Assam Khasi and Rabha possess the shortest foot. Rana, a backward caste of Orissa from Koraput possess the second longest foot. They are very close to the Sasan Brahmins. But in foot

breadth, the male Sasana Brahmins are close to Hira and Khasi and the females are close to Rana and Rabha. In foot index the male Sasana Brahmins occupy an intermediate position where as the females exhibit the lowest value. Both male and female Sasana Brahmin exhibit similar value of hallux divergent angle as those of Hira and Khasi.

From Table 7, it is observed that the Sasana Brahmin male differ significantly from Khasi in foot length and foot index and from the Rabhas in foot length only. They do not differ significantly from any other groups. The Sasana Brahmin female differ from the Rana in foot index only from the Hira in foot breadth and foot index, from the Khasi in all the three anthropometric characters shown in Table 7 and from the Rabhas in foot length and foot index.

TABLE 1

Relative length of the first and second toes of foot of the Sasana Brahmin

No. of individuals	Rt.			Lt.			Combined			
	}			}			}			
	1>2	2>1	1=2	1>2	2>1	1=2	1>2	2>1	1=2	
	T%	F%	O%	T%	F%	O%	T%	F%	O%	
Male—100	..	76.0	17.0	7.0	81.0	10.0	9.0	78.5	13.5	8.0
Female—100	..	87.0	7.0	6.0	88.0	8.0	4.0	87.5	7.5	5.0

TABLE 2

Comparision of the data of relative lengths of first and second toes in different population

Population	Sex	Number	T	F	O.	Author
Sasana Brahmin	Male	100	78.5	13.5	8.0	Present study
Rana	.. Do.	87	83.93	4.6	11.47	Pattnaik
Hira	.. Do.	76	88.81	3.28	7.89	Das and Das
Khasi	.. Do.	56	87.81	7.14	5.35	Das and Uzir
Rabha	.. Do.	300	87.50	16.50	13.83	Ditto
Santal	.. Do.	44	69.66	11.36	3.41	Pal
Mundari	.. Do.	45	85.23	13.33	5.56	Sarkar
Juang	.. Do.	43	81.11	3.49	4.65	Do.
Oraon	.. Do.	44	91.86	5.68	1.14	Do.
Pahira	.. Do.	29	79.31	12.07	8.62	Do.
Sasana Brahmin	Female	100	87.05	13.05	8.0	Present study
Rana	.. Do.	75	89.10	2.55	8.35	Pattnaik
Hira	.. Do.	105	87.61	7.61	4.76	Das and Das
Khasi	.. Do.	62	76.60	8.06	15.31	Das and Uzir
Rabha	.. Do.	300	72.66	18.33	9.00	Ditto
Santal	.. Do.	67	83.58	8.96	7.46	Pal
Mundari	.. Do.	9	83.33	11.11	5.56	Sarkar

TABLE 3
Frequency of Homo and Heterotypes of individual

Types of people	Sex	No. of individuals	TT%	FF%	OO%	TF%	FT%	TO%	OT%	FO%	OF%
Sasana Brahmin	Male	100	77.00	5.00	3.00	4.00	8.00	2.00	3.00	4.00	1.00
Rana	Do.	87	75.70	1.15	4.60	3.35	1.15	8.05	1.15	1.15	1.50
Santal	Do.	44	79.55	4.55	2.27	11.36	..	..	..	2.27	..
Mundari	Do.	45	73.33	6.67	2.22	8.69	2.22	2.22	2.22	..	2.22
Hira	Do.	76	80.26	..	1.31	2.63	2.63	9.21	1.31	1.31	..
Juang	Do.	43	86.05	..	..	..	1.72	2.58	..	0.86	..
Khasi	Do.	56	80.35	3.57	..	3.78	3.57	8.92	1.78	1.78	..
Oraon	Do.	44	88.64	2.27	..	2.27	4.57	2.27	..	..	..
Rabha	Do.	300	60.33	10.66	5.66	3.00	4.00	3.66	4.33	4.33	..
Pahira	Do.	29	75.86	6.90	8.90	3.45	3.45	..	..	3.45	..
Sasana Brahmin	Female	100	84.00	4.00	1.00	2.00	1.00	1.00	3.00	2.00	2.00
Rana	Do.	78	80.75	1.28	1.28	..	2.56	14.10	..	..	..
Hira	Do.	105	80.95	1.90	0.95	5.70	2.85	1.90	0.95	0.95	..
Khasi	Do.	62	69.35	3.22	6.44	1.61	6.44	6.44	1.61	1.61	..
Rabha	Do.	300	63.00	11.00	2.66	3.66	7.00	4.33	2.33	2.33	..
Mundari	Do.	9	77.78	11.11	..	..	..	..	..	..	..
Santal	Do.	67	77.71	5.97	..	..	2.98	..	..	..	..

TABLE 4
Mean Values of the Characters of Sasana Brahmin Foot

		Left	Right	Combined	Range
		Mean+S.E.	Mean+S.E.	Mean+S.E.	Mean+S.E.
Foot length (in cm.)	Male	25.93+0.08	25.00+0.63	25.37+0.03	22—30.3
	Female	23.07+0.11	23.02+0.16	23.05+0.12	20—26.2
Foot breadth (in cm.)	Male	10.13+0.73	10.32+0.03	10.22+0.31	8—13.4
	Female	8.65+0.05	8.82+0.05	8.78+0.03	7—10.2
Length breadth Index.	Male	40.28+0.32	43.51+0.29	41.28+0.69	29—48.9
	Female	40.28+0.69	37.6+0.19	37.92+0.13	33—44.9
Hallux divergent angle.	Male	7.09+0.13	8.08+0.11	7.20+0.25	5—13.4
	Female	7.65+0.15	6.43+0.13	7.05+0.10	3.9—12.6

TABLE 5
Difference of mean 't' test of significance

		Sasan Brahmin male		Sasana Brahmin female	
		Right	Left	Right	Left
		Diff	t	Diff	t
Foot length	..	0.93	1.47	0.17	0.25
Foot breadth	..	0.21	0.28	0.17	2.42*
Foot Index	..	2.23	5.18**	2.68	3.77**
Hallux divergent angle.		0.99	5.82**	1.22	6.82**

* Significant at 5% level

** Significant at 1% level

TABLE No. 6
Comparison of means

Male	Foot length in cm.	Foot breadth in cm.	Foot Index	Hallux divergent angle
Sasan Brahaman	25.37±0.03	10.22±0.31	41.28±0.69	7.20±0.25
Rana	24.72±0.11	9.97±0.61	40.00±0.17	6.49±0.11
Hira	24.56±0.12	10.05±0.06	41.00±0.15	7.48±0.13
Khasi	23.58±0.11	10.07±0.66	42.43±0.28	7.00±0.10
Rabha	23.97±0.07	9.97±0.05	40.74±0.13	6.73±0.06
Female				
Sasan Brahaman	23.05±0.12	8.78±0.03	37.92±0.13	7.05±0.10
Rana	22.80±0.08	8.85±0.13	39.22±0.18	5.62±0.08
Hira	22.63±0.10	9.15±0.05	40.31±0.13	7.27±0.11
Khasi	21.95±0.11	9.37±0.05	41.98±0.27	7.01±0.11
Rabha	22.20±0.07	8.74±0.03	39.58±0.13	6.59±0.06

TABLE 7
Difference of mean. t—test of significance

Male	Foot length		Foot breadth		Foot index		Hallux divergent angle	
	Diff	t	Diff	t	Diff	t	Diff	t
Sasana	0.59	0.53	0.11	0.16	0.28	0.39	0.71	2.53*
Brahmin—Rana	..	..	..	..	..	..	..	..
Sasana	0.75	0.62	0.03	0.09	0.72	1.02	0.28	1.00
Brahmin—Hira	..	..	..	..	..	..	..	..
Sasana	1.73	15.70**	0.01	0.01	2.15	2.90**	0.20	0.75
Brahmin—Kasi	..	..	..	..	..	..	..	..
Sasana	1.34	19.14**	0.11	0.35	0.46	0.65	0.47	1.88
Brahmin—Rabha	..	..	..	..	..	..	..	..
Female	0.25	0.17	0.03	0.23	1.30	5.90**	0.43	1.34
Sasana	..	..	..	..	..	..	..	..
Brahmin—Rana	..	..	..	..	..	..	..	..
Sasana	0.42	0.12	0.33	6.60**	2.39	3.41**	0.22	0.66
Brahmin—Hira	..	..	..	..	..	..	..	..
Sasana	1.10	6.80**	0.55	11.00**	4.06	5.48	0.04	0.12
Brahmin—Khasi	..	..	..	..	..	..	..	..
Sasana	1.03	7.90**	0.03	0.75	1.66	2.37*	0.46	1.43
Brahmin—Rabha

*Significant at 5% level
**Significant at 1% level

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Causes of Wastage and Stagnation in Tribal Education (Secondary) in Orissa.

DINABANDHU MISHRA

Wastage and stagnation are universal problems affecting all educational institutions throughout India not only at the primary stage but in the field of secondary education also. The problems is no doubt an acute one in the realm of tribal education.

Like other states, the state of Orissa is confronted with the problems of wastage and stagnation in so far as the question of tribal education is concerned.

The essay is designed to deal mainly with the problem arising in the field of secondary education for the tribes in the State.

Recently a study on the problem was conducted by the author by a questionnaire prepared by himself and checked by Dr. S. C. Das, Reader, State Institute of Education, Orissa.

All possible assistance to the tribal students is provided by the government. They are supplied with garments, beds and utensils, study materials, etc. free of cost. Provision of free lodging and fooding is made for them. They are exempted from tuition fees. In spite of all this, it is unfortunate that a good many students discontinue studies. The objective of the study is to find out the causes leading to this crucial problem and to suggest some remedial measures.

The opinions of Headmasters of twenty full-fledged High Schools run by the T. & R. W. Department of the State were collected, with the help of the questionnaire. These responding High Schools represent almost all the districts of Orissa. The data collected have been arranged in the following table:—

Causes of discontinuance of studies		Percentage of High School Headmasters supporting the cause.
1	Failure in Examination ..	55
2	Lack of interest for education ..	35
3	Proverty ..	30
4	Helping parents in their work ..	25
5	No. parental goading ...	5
6	Un-employment after education ..	5
7	Distance from schools ..	5
8	Early marriage ..	5

1. Failure in Examination

As per the table, highest is the percentage of High School Headmasters who have looked upon the failure in examination to be the most important cause leading the tribal students to discontinue studies. In all the tribal High Schools, students reside in the school hostels. Besides, all the tribal students enjoy monthly stipend. But there is an exception creating sufficient ground for the cause. The scholarships are not granted to those who fail in class or in the Board (Board here refers to 'The Board of Secondary Education, Orissa'). If they come out successful in the subsequent year, they again become eligible to enjoy the same in the next higher class as usual.¹

This is nothing but a censorship imposed on the tribal students with a view to make them more conscious and cautious of their industry, sincerity, perseverance and thereby fostering in them a spirit of competition in having a thorough preparation of their lessons and achieving success in examination.

As a result of this censorship, the students who fail in examinations discontinue their studies. It so happens that only the comparatively meritorious students remain in the schools. It is reported that only 2 to 3 per cent of failed students continue studies without government stipend. A good number of tribal students are thus deprived, of their education after failure in examination.

When the mass education campaign is being launched among the

tribals, a few poor but interested individuals should not be disappointed to retire from the field of education. There is a provision that those who will fail in H. S. C. Examination will be given a second chance to appear at the same examination being allowed to enjoy stipend till the second examination is over.

It is felt that similar concession should also be given and favour shown to the students who fail in school examinations starting from Class IV (or VI) to Class X. It is hoped that Government would take steps in the matter with a view to putting a ban on the undesirable growth in the percentage of wastage in the field of tribal education.

2. Lack of interest for Education

The next important cause indicating the second highest percentage of opinion of the High School Headmasters is that there is a lack of interest for education among the tribal people. This is a culture-oriented attitude as education is not among the social needs of the tribal people.

The school environment, the curriculum and the content of education are alien to tribal life in the villages. The teachers are generally non-tribals and hate the tribal way of life. A school going tribal boy becomes a misfit in his home, hates his parents and their ways and is anxious to leave his village as soon as possible to seek a job in the town. Education, thus, forces him out of his traditional occupation. It detribalises him to a great

extent. It drains the talent from the village to the town leaving the former in a state of sheer ignorance as before.²

The Government of Orissa should, therefore, create a favourable attitude in the tribal people towards education:—

“Stimulation of elders by motivating them consciously in favour of education should be carried out extensively. If necessary, the mass literacy campaign should be launched as tried in Maharashtra.”³

The school and community should be drawn together by making the parents and tribal leaders participate in the activities of the school.

For achieving this end both primary and social education should be given wide coverage especially in educationally backward tribal areas and communities.

3. Poverty

The third cause which 30 per cent of Headmasters of the responding High Schools have supported is poverty. Educational wastage among the tribal students is due mainly to their being plunged in deplorable poverty. Economic barriers make the tribal people feel reluctant to have a favourable attitude towards education and culture.

“For a tribal family, to send its boy and girl to school is essentially a matter of economics.”⁴

Consequent upon the personal interviews with the students, the author has come to know that some students of Mayurbhanj, the most advanced and prosperous area of the State inhabited by the tribes are found discontinuing studies due to their abject poverty. The main cause of such untimely retirement from studies is, on one hand, their deplorable poverty and on the other, the low rate of stipend granted to them by the Government.

Regarding the inadequacy of monthly stipend, almost all the Headmasters of the responding High Schools have suggested a further increase. So it is desirable that the messing, vegetable and lighting allowances should be suitably increased to relieve the difficulties of students⁵. One of the Headmasters has suggested that the rate of stipend which is Rs. 31 a month for High School students should, in consideration of the present rise in the price-Index, be enhanced to Rs. 45.

Besides, it may further be suggested that tribal students may be allowed to reside in the school hostels during all the vacations and stipend should also be granted to them during the period. This would, it is felt, relieve them of the difficulty in regard to scarcity of food at home indirectly leading them ultimately to take to some job for helping their parents and thereby discontinuing studies.

4. Helping parents in their work

Thirty per cent of Headmasters have supported this cause that tribal students are engaged more in

helping their parents in work than in allowing them to continue their studies. The tribal economy is indeed responsible for this. The tribal family is just like a factory and each member is treated like a co-worker:—

“For a tribal family, to send its boy and girl to school is essentially a matter of economics and entails dislocation in the traditional pattern of division of labour within the family”.

Girls give every kind of help to their mothers while the boys work in the field with their parents in the agriculture seasons. In other seasons they are busy in collecting minor forest products and firewood, grazing goats and cattle, watching the crops, bringing water, fishing and hunting. Many parents can not afford to send their children to school and many stop their going to school even in the middle of the session. The value of stipend to them is not regarded as higher than the price which the labour of the children otherwise pays. Thus their economic condition deprives them of education.

Government, therefore, should take steps to inject into the minds of tribal people the idea of imparting education to their children. This can be achieved through social and adult education agencies.

5. No parental goading

That there is no parental goading is another cause leading tribal students to discontinue studies.

Family being the first school of the individual and if the members have an attitude of fear, ignorance and distaste for education naturally there will be no parental goading. Though, taking this fact into consideration, Government provides monthly stipend to them, some improvement in these measures is still left to be achieved.

To ensure the growth of parental goading among the tribals, there must be mutual and clear understanding about the need and importance of education between teachers and the parents. This can be achieved through Parent-Teacher Association both at primary and secondary stages of tribal education. On the other hand, the State Bureau of Educational and Vocational Guidance has much to do. Career Days and Career Conference should be arranged in these schools explaining the need of education in relation to different vacations. This would make the parents interested in the education of their children.

6. Unemployment after education

In spite of reservation in various categories of posts for tribals, there are a good number of tribal youth who are found disappointed in securing jobs. The tragedy is that for an educated tribal the scope of securing a job is much more limited than that for a non-tribal. The percentage of highly educated non-tribal is unthinkable low who do not feel reluctant to appoint these disappointed persons even as private tutors for their children. To open a canteen or even a betel shop, a tribal has a very limited market area than a non-tribal.

The school has to prepare the tribal students well in different crafts to enable them to adopt some profession independently. Teaching in some crafts is no doubt imparted, but they are not taught from the point of view of making the students professionally efficient. Secondly, there is no uniformity in opening certain number of crafts in all the institutions. Thirdly, these craft subjects have not yet been recognised by the Department of Education as a result of which the students passing from these schools are not eligible for employment on the basis of their training in crafts.

7. Distance from schools

The tribal students appear conservative and homesick in an alien environment. Thus distance of schools is considered to be partly responsible for their discontinuing studies. To eradicate this difficulty, Government should take steps to open more schools in tribal area so that the distance of school from tribal villages would be lessened. The area served by the school would, thereby, be limited and the educational institutions would be within easy reach of the tribal children. It may, therefore, be suggested that there should be at least one High School for an area equivalent to the coverage of a T. D. Block.

8. Early marriage

It is felt that tribal youth are comparatively more free as regards sex and there is less control in the sphere of free mixing between girls and boys in tribal areas.

One cannot imagine tribal society without festivals, dancing and singing. The tribal dormitories—the houses for 'Dhangdas' and 'Dangdis' (Grown up tribal boys and girls) are also sources of entertainment. Without such entertainment the tribal student feels bored in the school.

The schools, therefore, should provide from time to time through cultural programmes like drama, dance and music befitting to the taste and interest of the tribal boys and girls, sufficient means of entertainment. Besides making the entire school environment congenial and attractive for the tribal youth it would help them develop a new outlook towards life.

Teachers engaged in the field of tribal education should remember that they have to play a double role—as educators and as care-takers. They should act as teachers, philosophers and guides of the tribal children. For this, they should be given sufficient orientation in tribal culture.

Government of Orissa should take steps to check the growth of educational wastage and stagnation by adopting effective, allround measures.

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economic aspects on the
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The language from schools
and tribal students appear
to be very poor. It is an
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The government should
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Meriah and Ram—Tribal Beliefs in Agriculture.

N. DEVASAHAYAM

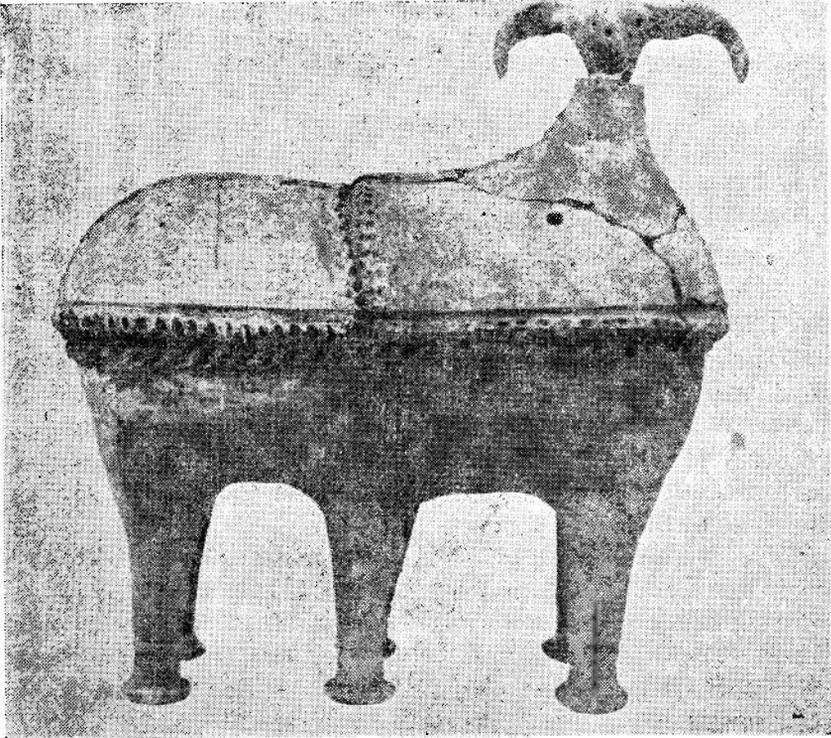
Of all the three Orissan tribal representations in the Anthropology galleries of the Madras Government Museum, the Khond is by far better than the Saora and Gadaba. In fact the significance that the sacrificial post, the Khond Meriah Sacrifice Post, possesses, can make it not as a mere piece of antiquity of a hundred years old, but as a beam of light, revealing certain primitive beliefs with reference to the magico-religious approach in the field of tribal agriculture.

A unique specimen in the whole of India, the Meriah Sacrifice Post of the Khonds was brought to the notice of this Museum early in the 18th century. It was actually taken from Baliguda, Orissa State, by Colonel Pickance.

“Meriah” is the name given to the person selected to be sacrificed. He may be purchased, captured or dedicated. On the appointed day he is allowed to drink and dine freely and have sexual intercourse according to his choice. Finally he is got and anointed with oil and tumeric and tied to the horizontal piece of the Meriah Post and is killed as a sacrifice.

Now we are forced to go back a hundred years, and we recollect the methods and customs observed in this sacrifice to propitiate the earth goddess “Thara Pennu” to ensure good crops and to avert diseases. The whole affair of human sacrifice was based on the belief “like produces like” or the law of similarity or Mimetic magic and the Khonds feel that as tears roll down the sufferer’s cheek, and the blood gushes forth from his wounds, so will the rain come over the fields and bring excellent crops.

A similar type of theologically based analogy from the Megalithic Age may be cited here to improve the parallel attitude of the religious awareness of the people of the prehistoric and the tribal communities. It was nothing but the specimen of the Ram Sarcophagus (only one in the whole of India) which is housed in the Prehistoric galleries of the Madras Government Museum. It was brought to the notice of the Bishop in Dornakal in 1935 while laying the foundation stone for a church at Sankavaram. This megalithic burial pottery figure is unique in the sense that it has got six legs instead of four, the trunk is decorated with rope work design (probably for riding—for souls) and a head



of a ram. One interpretation of this figure is that the concept of the corn spirit may be applicable here, since it is believed that the generating forces of the corn assume the form of an animal—the cow or dog or pig or ram. But turning the pages of the old testament of the Bible one may find at several places, that the animal ram is mentioned as the chosen one, for bearing the sins and evils of the people. Therefore, the ram or the scape goat which is loaded with the sins of the gentiles is driven to the wilderness.

It was noticed after banning the human sacrifices in 1837, that during the Dassara festival in

Jeypore, Vizagapatnam a fine and special ram is selected, washed, its head shaved and covered with a fine white cloth for sacrifice.

Do we not read that Abraham sacrificed a fine ram instead of his only beloved son Isaac, as an equal compensation.

Thus we find that even during the sacrifice to god, instead of human beings, his immediate substitute the ram is selected but the magico-religious approach to the problem remains unchanged whether man or animals laden with man's sins is sacrificed.

Couple—Children Ratio in the Family type of the Oraons of Sundarban.

SUNIL KUMAR BASU

During 1967-68 a field investigation was undertaken in certain selected villages of the district of 24-Parganas, West Bengal under a 'Village Survey Project' with the objective to assess the intercommunity differences in their educational and economic attainment. In addition to that certain data were also collected relating to family constituents. The present paper is based on these data. Here the purpose is to examine the per-couple average children in different types of families among the Oraons of the area.

The population

The data presented here relate to the Oraons, a tribal community whose migration to their present habitat may be traced to at least seventy years back from the adjoining State of Behar. The history of this migration dates back to the time of deforestation in the Sunderban area of coastal Bengal. The characteristic feature of the settlement pattern of these people is often marked by their population-concentration in certain localities—be it in one village or in a group of villages.

The locale selected for the present study, is a village of

Boyarmari Abad under Sandeshkali police-station of the district. This is a fairly large village with more than 837 family units living dispersedly over a number of hamlets.

There are altogether twenty-two ethnic groups identified separately with caste, community or religious faiths. The Oraons represent 280 families with a population of 1,880 (34.79 per cent). The present analysis deals with 460 monogamous couples and their average number of children living at the time of survey. Besides them, there are seven other polygamous couples with more than one wife at a time; of them, one is in simple family type and the rest six are in joint families. In the polygamous couples, in joint family types, there are sixteen children in all. There are only two children with the polygamous couple living in the simple family.

It is observed that for the Oraons the norm of the marriage contract is primarily based on monogamous type. Hence, in working out the couple-children distribution only the monogamous couples have been counted in the accompanied table (No. I).

Procedure

Couples have been categorised according to their living in simple or joint family units. Further division has been made in relation to complete and incomplete (absence of either of the spouses) family structures. For the joint family, especial reference has been made to spouses of the two generation levels filial and parental. As the social norm of the community concerned is based on patrilineal descent and partilocal residence, the patrikins only have been taken into account for delimitation of family structures.

Some salient features

Of the total 460 couples, 126 are living in simple families and the rest 334 are found under joint families. Incomplete couples, with the absence of either of the consorts, are met mostly among the joint family units of parental generation. There are 59 such incomplete couples among them, and this figure is the maximum for any single category or any combination thereof. The maximum number of seven children are found only in two cases of the couples among the simple families as against only three cases of the couples in the joint families. Conversely, there are 13 (10.32 per cent) couples of the simple families and 50 (14.94 per cent) couples under joint families who, in both cases, are childless. Proportionately high percentage of couples, both in simple (53.96) and joint families (67.06), are found with children varying from one to three in number. For the simple families in general, the number of couples increases with the number

of children at the beginning. But from three children upward, the number of couples decreases gently. In case of joint families this increase in the number of couples with one child is registered as maximum; the slope then follows an abrupt fall with decrease in couples along with the successive increase in number of children.

The per couple average number of children is found highest (3.22) among the simple family types. Correspondingly, for the couples of joint families, this average appears as 2.4 children. The trend is maintained although for each category of simple family. Conversely, among the couples of joint family of any category (complete/incomplete/filial/parental) the averages for children are consistently low. But among the couples of the joint family themselves the average of children is a bit high (2.27) in their parental generation as against 1.51 children per couple in their filial generation.

(Please see Table I)

Discussions

From the above findings it may be deduced that (i) the couple-formation among the given population of the Oraons is primarily based on monogamous marriages, (ii) maximum number of couples have one to three children, and (iii) per couple distribution of children is higher among the simple family units.

The above findings stand in conformity with the previous study of similar nature made among the Santals of Midnapur district

TABLE I

Showing per couple average distribution of surviving children in different family types of the Oraons

Couples living in	Couples with- out children	Number of couples with children							Total couples and total chil- dren (cols. 3 to 9)	Average No. of children per couple
		1	2	3	4	5	6	7		
1	2	3	4	5	6	7	8	9	10	11
Simple family (com- plete),	13	17	23	23	20	13	10	2	108	
Total Children ..	0	17	46	69	80	65	60	14	351	3.21
Simple family (In- complete),	..	1	2	1	..	1	..	..	5	
Total Children ..	..	1	4	3	..	5	..	..	13	2.60
All simple families	13	18	26	24	20	14	10	2	113	
Total Children ..	0	18	52	72	80	70	60	14	364	3.22
Complete joint family (filial),	41	48	37	27	12	18	5	1	148	
Total Children ..	0	48	74	81	48	90	30	7	378	2.55
Incomplete joint family (filial),	2	5	2	1	1	..	..	..	9	
Total Children ..	0	5	4	3	4	..	..	..	16	1.77
All joint family (filial),	43	53	39	28	13	18	5	1	157	
Total Children ..	0	53	78	84	52	90	30	7	394	1.51
Complete joint family (parental),	4	19	18	15	12	2	4	1	71	
Total Children ..	0	19	36	45	48	10	24	7	189	2.66
Incomplete joint family (parental),	3	32	14	6	1	2	..	1	56	
Total Children ..	0	32	28	18	4	10	..	7	99	1.76
All joint families (parental),	7	51	32	21	13	4	4	2	127	
Total Children ..	0	51	64	63	52	20	24	14	288	2.27
All joint families ..	50	104	71	49	26	22	9	3	284	
Total Children ..	0	104	142	147	104	110	54	21	682	2.40

(Pakrasi and Mukherjee : 1969). In that study the average distributions of children among 154 couples living in simple and joint families were shown. It was found that the per couple average of Children was highest (2.7) in simple family units, while the corresponding figure for the couples of joint families appeared as 1.8 only.

Similar study was also made by Chakraborty (1971) among the Santals of Malda and Birbhum of West Bengal. The couples counted were 310 in total. The findings revealed the same trend that couples in simple families had larger number of children (3.29 average) against the average of 2.48 in joint family units.

Comparative figures showing the findings of two parallel studies

Couples living in	Total couples and total Children		Average number of Children per couple	
	Pakrasi and Mukherjee 1969 N=154 couples	Chakraborty 1971 N=310 couples	Pakrasi and Mukherjee	Chakraborty
Simple families ..	57	122		
Total children ..	153	401	2.7	3.29
Joint families ..	97	140		
Total children ..	176	347	1.8	2.48

To arrive at a firm conclusion, despite the repetitive nature of findings, further probing into the total count of conceptions is needed. Consideration of age of the wives should be another point to judge the potentiality of the child bearing couples.

Willy-nilly, it is expected that this primary knowledge about the couple-children ratio will be helpful to choose the clientele for selling the much cherished idea of planned parenthood. The association of larger number of children with the couples of simple families poses a further question as to whether these families should be the vulnerable units for population planning. Because, the hitherto common belief has been that with the increase of urbanisation there should be an increase in the number of simple families. Taken this as

accepted, the greater ratio of couple-children in the simple family types becomes a corollary to urbanisation.

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Consanguinity in India

SALIL KUMAR BASU

Marriages between related individuals, known as consanguineous marriages offer the most interesting material for research in human genetics. The likelihood of spouses having the same genes is considerably increased in close inbreeding. Inbreeding tends to bring into the open recessive alleles present in heterozygous carriers. The genetic facts afford an understanding of the often contradictory effects of inbreeding, which sometimes result in undesirable phenotypes and, at other times, in normal or even better than average constitutions. Such different results are partly due to initial genetic differences in the original mates, who may be carriers of unfavourable or favourable recessive genes. Unfavourable homozygous phenotypes are usually more obvious than favourable ones.

Since rare recessive traits are brought to light by inbreeding, it is of utmost importance to assess the result of this factor precisely. Investigations of the relationship between consanguineous marriages and the occurrence of diseases in the offspring can give accurate information about recessive inheritance. The probability of obtaining recessive gene determined abnormalities or embryonic deaths in the progeny of consanguineous

marriages is much greater than in unrelated marriages. Frequencies of abortions, miscarriages, stillbirths, neonatal deaths, increased risk of illness, susceptibility to infectious diseases, premature deaths, physical and mental defects are usually directly correlated to the various degrees of consanguinity. This fact can be evaluated by a comparison of consanguineous and non-consanguineous marriages (control group). The co-efficient of inbreeding (F) can be ascertained for the inbred community under investigation in order to evaluate the amount of genetical risk endowed in the population.

Detailed study of the effects of inbreeding would also enable a voluntary restriction of child bearing by couples who have been found to carry serious hereditary defects.

In addition to studies of the etiology of the various diseases and defects, the consanguineous marriages, specially the cousin marriages, could be used in attempting to solve such basic genetic problems as components of genetic load, calculation of human mutation rates, etc. Furthermore, such studies of marriages would contribute to the understanding of sociology, anthropology and demography of the population.

Consanguineous marriages in Indian population

The Pattern of marriages in India is largely governed by three important regulations, namely (a) Endogamy (marrying within the group), (b) Exogamy (marrying out) and (c) Consanguineous or Sapinda marriages. The regulation of consanguineous marriages does not permit marriages between two individuals related through a common male ancestor up to 7th generation on the father's side and 5th generation on the mother's side. The consanguineous regulation has been enforced with great rigidity in the north. In the south, it had to be relaxed to conform to the prevailing custom of great preference for consanguineous marriages at the time of entry of the Brahman influence in the first millenium B. C. (Sanghvi, 1966). It is worthwhile to distinguish clearly endogamy from inbreeding. It is sometimes wrongly believed that the division of the population of India into a large number of castes and tribes has lead to a great deal of inbreeding. In a genetic sense, this is not necessarily true. As these castes and tribes run into thousands and millions and are sufficiently large,

they do not lead to inbreeding unless there are marriages of close blood relations.

Reviewing the consanguinity picture in India, it is observed that little work has been done on the inbred communities. The data on the frequency of consanguineous marriages are available mainly from Southern India; and except the present consanguinity study in the Muslims by the author, no other work has been reported so far from Northern India. The populations in the southern states of India i.e. Andhra, Kerala, Madras, Mysore and Maharashtra are unique in the occurrence of a greater frequency of consanguineous marriages. The magnitude of consanguinity effect is best measured by the frequency of cousin marriages present in the population.

Andhra Pradesh

Dronamraju and Meera Khan (1961, 63) reported some data on inbreeding from an urban population in Andhra Pradesh. According to their studies, the consanguinity rates in various endogamous groups are as follows:

<i>Endogamous groups</i>	<i>Total consanguinity</i>
Telgu Brahmins ..	22.5 per cent (first cousins—17.5 per cent)
Telgu Non-Brahmins —	20 per cent (first cousins—15 per cent)
Sudras ..	34.1 per cent (first cousins—15.38 per cent)
Harijans ..	46.01 per cent (first cousins—23.07 per cent)
Muslims ..	36.24 per cent (first cousins—32.87 per cent)
Christians ..	19.3 per cent (first cousins—15.38 per cent)

Dronamraju and Meera Khan (1963) also reported the morbidity

pattern in the children of consanguineous and non-consanguineous

marriages in a hospital population of Andhra Pradesh. Highest percentage of consanguinity (42.1%) was among the parents of patients with malformations. The co-efficient for the parents of patients suffering from pulmonary tuberculosis (0.03289) was significantly higher than in the other groups. Stillbirth and mis-carriages were much higher in the consanguineous marriages than in the non-consanguineous marriages.

Sanghvi (1966) in his sample of 6,945 marriages from 39 villages, spread over 14 districts of Andhra Pradesh, recorded that the main feature of the data was a high proportion of uncle-niece and matrilateral cross-cousin types which accounted for 2 out of every 5 marriages. The total consanguinity rate was found out to be 42.5%. In addition, 2.13% of the marriages were of the patrilateral cross-cousin type. The co-efficient of inbreeding was 0.032 for autosomal genes and 0.051 for sex-linked genes. The excess value for the sex-linked genes was contributed entirely by the matrilateral cross-cousin marriages. It was further observed that there was a significant variation in the pattern of inbreeding in different districts, with highest concentration in the Coastal areas of Vishakhapatnam and Eastern Godavari. ($F=0.045$ to 0.048 for autosomal, $F=0.058$ to 0.071 for sex-linked). There was a gradual decline in the inbreeding levels away from the coast.

Chakravarti (1968) in his sample of about 680 marriages among the Kolam Tribe in the Adilabad district, Hyderabad, Decan noted 20.0 per cent consanguinity rate ($F=0.015$ and $F=0.021$).

Maharashtra

The consanguinity picture of this region can be gathered from the works of Sanghvi (1956) on 6,597 marriages among the 12 endogamous groups in Bombay. Out of these 12 groups (a) seven were Marathi speaking Hindu castes. Rates of consanguinity were low among the Brahmins & kayasthas with co-efficient of inbreeding varying from 0.001–0.003. The consanguineous marriage type that contributed mainly to inbreeding was the matrilateral cross-cousin.

In addition, there were (b) 3 Muslim groups—Memans, Bohras and Khojas where the rates of consanguinity were found to be 27.1, per cent 26.0 per cent and 13.0 per cent respectively, (c) a group of Parsis showing 18.0 per cent consanguinity (d) a Christian group where the consanguinity rate was observed to be 2.6 per cent.

The co-efficient of inbreeding among the Muslim and Parsis was high varying from 0.006–0.013. The Christians who were Roman Catholics, gave a value of 0.001.

Kerala

Kumar, Pai and Swaminathan (1967) in their studies of several hospital populations in Kerala recorded about 20 per cent incidence of consanguineous marriages and the estimate of mean co-efficient of inbreeding as 0.01056. The most frequent types of consanguineous marriages were of a girl with her (a) maternal uncle's son and (b) paternal aunt's son. The uncle-niece marriages were not observed to be preferred in Kerala. The

frequency of foetal and infant deaths were significantly higher in inbred progenies than in the outbred. The estimates of total mortality for first cousin, second cousin and unrelated marriages were 33.58, 20.58 and 11.69 per cent respectively. The total genetic load was between 3 to 4 lethal equivalents per gamete. The estimates of B and B/A statistics were high.

Chakravartti (1968) observed both the matrilateral (11.0 per cent) and patrilateral (3.0 per cent) types of consanguineous marriage among the Brahmins of this region with F & F, values as .008 and .016, respectively. Among the Moplahs the consanguinity rate was found out to be 24.0 per cent.

The tribals of Kerala namely, Paniyas and Muthuvans displayed 32.08 per cent of consanguinity.

Godschnidt (1961) reported 40.7 per cent of consanguinity among the Jews of Kerala.

Madras

Chakravartti (1968) in a study of 1,912 marriages recorded the frequencies of consanguinity among various castes, i. e., Tamil (29.0

per cent), Harijans (36.0 per cent) and tribals, i. e., Todas (20.0 per cent), Kotas (14.3 per cent), Irulas (24.1 per cent), Kurunbhas (25.46 per cent).

Mysore

Chakravartti (1968) in a study of 212 marriages, reported the consanguinity rate among the Kanarese Brahmins as 23.11 per cent.

Consanguinity study among the Muslims of Northern India (Delhi and Lucknow)

A consanguinity research project financed by Indian Council of Medical Research, has been conducted by the author since 1969 among the various endogamous Muslim groups (both Shia and Sunni) of Northern India. The study in its first phase, has been confined to the middle income urban Ashraf group (Sayyad, Sheikh, Mughal and Pathan) of Delhi and Lucknow. Some results of the study have been reported (Basu, 1970, 1971); the investigation is still in progress and a tentative summary of findings is presented here:—

Material—

(a) Consanguinity Data—

- (i) 1012 Sayyad families of Chowk area, Lucknow
 - (ii) 498 Sayyad Shia families
 - (iii) 737 Sheikh Suni families
 - (iv) 253 Moghul Suni families
 - (v) 72 Pathan Suni families
- } Juma Masjid area, Delhi

(b) Reproductive performance--

- (i) 209 Sayyad Shia mothers of Lucknow.
- (ii) 135 Sheikh Sunni mothers of Delhi.

(c) Pedigree data—A number of genealogies showing the occurrence of abortions, still-births and miscarriage in the offspring of consanguineous parents have been studied in detail.

A few genealogies showing the incidence of colour blindness in the offspring of parental consanguinity have also been investigated.

Methodology

The consanguinity data were collected by investigating the families at random with the help of extensive genealogies. Nonconsanguineous families from the same genealogy acted as a control group. Detailed schedules covering various aspects like household census, literacy, socio-economic data, mating-pattern, joint-family system, preferential marriage alliances and types of consanguineous matings, inbreeding history, reproductive performance, disease and mortality history, etc. were filled up with great care.

Results

All the four types (patrilateral and matrilinear parallel cousin, patri and matrilinear cross-cousin) of first cousin marriages, uncle-niece and aunt-nephew marriages have been found to be present in the group. Uncle-niece and aunt-nephew marriages are always atleast one generation removed.

Consanguinity rates among the various endogamous Ashraf groups

have been observed to be 42.88 per cent among Sayyad Shia of Lucknow, 24.42 per cent among Sheikh Sunni of Delhi, 22.13 per cent in Moghuls Sunni and 23.61 per cent Pathan Sunni of Delhi. Uncle-niece and aunt-nephew marriages have been noticed to be low in frequency i. e., 2.07 per cent and 0.78 per cent respectively in Sayyad Shia of Lucknow and 0.96 per cent and 1.22 per cent respectively in Sheikh Sunni of Delhi. First cousin marriages have been found to be relatively in higher frequencies among the Sayyad Shia (25.28 per cent) as compared to Sheikh Sunni (13.96 per cent), Pathan (13.88 per cent) and Moghuls (15.01 per cent).

Frequencies of infant and juvenile deaths and reproductive wastage tend to show higher frequencies in the offspring of consanguineous parents as appeared to non-consanguineous control group.

Summing up, it can be pointed out that attempts should be made to investigate inbred communities in India intensively and extensively in order to study the effect of parental inbreeding on fertility, reproductive wastage, mortalities, health, vision, intelligence, growth pattern and to evaluate further the etiology of diseases and magnitude and nature of genetic load (mutational or segregational) in the group.

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Trends in the Religion of a Tribe.

RABINARAYAN SWAIN

The purpose of this paper is to study the religious behaviour of the Saora in the R. Udaygiri Block of Parlakhemindj subdivision of Ganjam district:—

- (1) for making an assessment of the traditional religious behaviour and the inherent contradiction in it responsible for change,
- (2) for analysing the forces of change,
- (3) to know how secular factors are converted to religious tendencies.

Gamang is the village headman of a Saora village. He was appointed by a Muthadar to collect Mutha (revenue) from villagers. These Muthadars were appointed by native chiefs who were Zamindars of the area and were responsible to pay *peshcus* (land-revenue) to the Government. The administrative machinery of the villages were controlled by native Chiefs. The entire organization was feudal in character with the Zamindar, Muthadar and the Gamang forming the hierarchy in descending order.

The economy of this area mostly agricultural. There was no definite land policy in this area before the last settlement operations. The

villagers cultivated land by clearing forests which was measured by a Muthadar for collection of land revenue. There was no law regulating the activities of the Muthadar. Taking advantage of his position, he exploited the people as he chose. He had even a right over the fruits and vegetables that a villager in his Mutha produced. For sale and purchase, the Muthadar exercised his right of giving permission for export and import from and to a particular village. In short, the economy of this area was dependant on the arbitrary action of the Muthadar. He also played the role of a money-lender to the villagers. In case of their need, they had to run to the Muthadar for money by mortgaging their produces, cows, bullocks, carts, buffalows or lands. The interest charged was exorbitant. If any Saora was unable to repay his loan, he had to secure the Muthadar on the basis of debt bondage. Once started the debt bondage service would go on for generations without end. The influence of the Muthadar continues, almost unabated, even after the abolition of the Muthadari system and promulgation of regulations prohibiting debt-bondage. If the Muthadar is a Hindu, the religious activities of the villagers get an Hindu orientation. On the occasion of religious

festivals, the Muthadars invite important personalities from the villages who are enamoured by the rituals and given to believe that the Hindu are better able to keep contact with the super natural forces. Some typical cases, illustrating this are cited below.

At Udayagiri there are three temples:—

- (1) Patitapaban temple
- (2) Mahadeb temple
- (3) Manikeswari temple

The Manikeswari temple is the oldest one. The deity in the temple is a Goddess, 'Manikeswari' by name. 'Patitapaban' temple was constructed by a Saora in the year 1917. The deity in the temple is 'Jaganath'. The literal meaning of 'Patitapaban' is the saviour of the down trodden. The prevalent belief in the locality is that the 'Saoras' are down-trodden and that the Lord Patitapaban would restore them to their rightful place in society. The Saoras very often carry milk, ripe plantain, coconuts for offering to the Lord Patitapaban. During the course of my talk with the Saora villagers I learnt that the Saora of Udayagiri area have a great faith on the Hindu Gods. It was reported that by offering prayers to Patitapaban, a Saora got the post of a Police Constable.

Saoras also come to worship Lord Siba in Mahadeb temple. They also offer coconut, ripe bannanas, milk to Lord Siba. On "Haat" days, a quite good number of Saoras visit the temple and offer their

"Jemptum", which means, 'Namaskar'. Masa, my informant, told me that Saoras of Sabarapalli carry a great faith on Lord Patitapaban and the villagers of Tumun, which is also a Saora village, have greater attachment towards Lord Siba in the Mahadeb temple. The story runs that a Saora of village Tumun asked for the Lord Siba to have a male child and he got it. Since then the Saoras of Tumun are having an enhanced faith in Lord Siba.

I saw a photograph of Goddess Durga in the house of one of my Saora informant, in village "Tumun". He told me that he had kept the photo as he felt that it was the photo of *Galbesum* village God whom the Saoras offer their worship in 'Nuakhia' festival. He explained me his feelings that their God *Galbesum* is seated on a tiger. So, the photo represented the god *Galbesum*. It appeared to me that those who were attracted towards Hinduism had not the slightest idea about Hindu pantheon.

Like Hindus, the Saoras perform Homa (offering to fire) before their Goddess *Uyuingboi*, wife of sun God (called Thakurani Maa), on the *Nuakhia* day. Whereas the Hindus use cow ghee and mango wood in a *Homa*, the Saoras offer Karanja oil and caster wood. The Saoras offer "Bela" leaf, Kumkum (Sindur) and camphor to their Goddess 'Uyuingboi'. To cure small pox and cholera, the Hindus perform Pujas to the Thakurani. The Saoras worship their Goddess *Uyuingboi* as a measure to cure small pox.

Guar is an important ceremony of the Saora. In Saora language *Guar* stands for buying or planting and for stones. The words *Guar* means planting of stone. One day this ceremony was of the utmost importance. It was very expensive to perform this ceremony. The general belief among the Saoras was that by performing the ceremony, freedom is given to the soul of the dead ancestors to take their place among gods. While performing the 'Guar' ceremony, the Saoras had to sacrifice buffaloes. They have abandoned this sacrifice. (The Hindus have also abandoned the sacrifice of buffaloes on the Devi Pujas). The Saoras have given up beef eating totally as they now consider it to be a sin to kill a cow or bullock. Some of the low caste Hindus take beef. A group of Saora, called *Arsi-Saora* also take beef. In imitation of the Hindu custom the *Arsi-Saora* are treated as a degraded group by other Saoras.

All the Hinduised tendencies, described above, are prevalent more in the areas where the Muthadar and the Gamang are Hindus.

The influence of Christianity is also equally strong in the areas where the missionaries are working and have been able to convert a substantial section of the population. The members of the Canadian Mission visit this area regularly. In the village Attarsingi, where most of the Saoras have been converted about fifty per cent of the Christian population are Baptists and the other half are Catholics. Conversion to Christianity has been very rapid in this village. In increasing numbers, year by year, the Saoras are embracing

Christianity and giving up their own religious idea and practices. I was told that economic motivation has been responsible for this conversion. The Saora traditional religious practices are very expensive and to meet such expenses, they had to incur heavy loan from the local money lenders which, was impossible on their part to repay. As a result of this they were being held in debt-bondage for generations and, in addition, had to depart with their products at a very low price. The Christian Missionaries have impressed on the Saoras not to believe on ghosts and spirits and be saved from their heavy expenditure on this score. They advise the Saoras to invest their income in a much better way which would ultimately help them to lead a prosperous life. I met the Pastor of the Baptist Church at Attarsingi and talked to him. According to the Paster, by embracing Christianity, the Saoras of the village have given up the habit of drinking wine. The marriages of the Christian Saoras are being performed in the Churches. (There were two Churches in the village—one for the Catholics and the other for Baptists). I talked to one Saora girl by name Miss. Sara Raika in Oriya. She appeared to be amply satisfied by her change of religion. By becoming Christian and coming in contact with the local missionaries, she had been able to earn more and make some savings. To my question, she replied that she had to spend more money of fashionable articles, which are necessary to maintain social prestige. She further informed me that for the last twenty-two years, conversion to Christianity has been

going on. They do not observe their traditional religious practices but only once in a week on every Sunday they gather together in the Church and offer prayer in their own language or in Oriya. Miss Raika appeared to have been very much impressed with her new religion and intends to dedicate her entire life for the cause of Christianity.

The following are the religious functions that a Christian in Attarsingi village follows:—

- (1) Prayer on Sunday.
- (2) Marriages are performed in the Church.
- (3) Name giving ceremony of a new born is held in the Church after 8 days of the birth of the child.
- (4) The dead body is enclosed in a coffin before being buried. A prayer is held in the Church that the soul be in peace.

By following these religious practices, the community has been saved from heavy expenditure and the consequent economic prosperity is a perceptible fact.

I wanted to know why there were two Churches in the village—one for Catholics and the other for Baptists. Miss Raika told that it was because Pastors of both the sects wanted to establish their missionary activities. Miss Raika also told me that there were differences between the Catholic Pastor and the Baptist Pastor because of keen competition among themselves to attract more converts.

The traditional Saora religious practices to ward off diseases were

very expensive, yet the cure was uncertain. The medical institution set up by the missionaries have been offering free medical service to the villagers. The modern medical treatment has attracted people towards Christianity. I interviewed Sundar Raika in the market who related how a man beaten by a snake and after being cured by the Father became a Christian.

The missionaries have also established educational institutions and the Saoras of Attarsingi are taking advantage of these institutions. They send their children to the school for education. The schooling is done in the Church.

By coming in contact with the Christian Missionaries, the Saoras have learnt about better sanitation and clearly habits. In appearance the Christian Saora is distinguished from the others by his cleanliness.

The most surprising fact that appeared before me was that there was not much improvement in the structure of houses in the village Attarsingi where a large number have taken to Christianity than those of other Saora villages where there has been no conversion to Christianity.

Owing to easier religious practices, better educational facilities, free medical treatment, knowledge about sanitation, use of fancy articles giving them a sense of social prestige, by following the advice of the Father in giving up wine which helped them to maintain better health and better relationship in the community, the Saoras of Attarsingi feel themselves privileged by their conversion to Christianity.

Pala'wan Social Organisation

GURUMURTY K. GOWDRA

Introduction:

The Pala'wan, one of the four ethnic groups of Palawan Island, Philippines, mostly inhabit the mountains, valleys and coastal areas of the southern and south-western parts of the island. They also live near Tagbanuwa settlements on the central areas of the island. But when compared with the settlements on the southern coastes, these are small and scattered. The Pala'wan are in close contact with other ethnic groups of the island as well as with Christian and Muslim population who to a great extent have influenced their customs and traditions. In general, however, the Pala'wan have much in common with the Tagbanuwa, a dominant neighbour, in their mode of living, social organization and belief system.

The Pala'wan, as an ethnic group, are looked down upon by

immigrant Christians and Muslims. This attitude is due to Pala'wan customs and institutions which are indeed different from theirs. A lack of a systematic study has also mislead the scholars, regrading the group identity and culture of the Pala'wan. Fox (1954 : 24) faced a considerable confusion as to the identity of Pala'wan as an ethnic group. So did Beyer (1916 : 64) when he wrote that the Pala'wan general culture is similar to the Tagbanuwa. Dean Worcester (1914 : 595), after a linguistic study, has stated that he failed to find any tribal differences between the 'Paluanes' (Pala'wan) and the Tagbanuwa. Fox (1954), in his intensive study of the 'Religion and Society among the Tagbanuwa', has brought further more facts to light. After a critical analysis of the opinion of Beyer and Worcester, Fox (1954 : 24) has come to the conclusion that all these ethnic groups of Palawan island might be

*The data for this paper were collected six years ago, when the author was in the Palawan Island, participating in the Summer Field School in Anthropology and Archaeology, organized by the National Museum of the Philippines and the University of the Philippines, during June—July, 1965. Between that year and this there could have been new information about the Palawan, and therefore, the present discussion on the subject does not claim to be comprehensive.

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from a common stock and today's differences are due to outside influences.

Pala'wan speak a dialect which is also called Pala'wan. They have borrowed Indic script from the Tagbanuwa and use it even today. As regards to the population figures, no census figures are available on Pala'wan. The estimated population figures vary far apart from one another. Beyer (1916 : 72), estimated both Tagbanuwa and Pala'wan under a common name—Tagbanuwa, as about 19,460. Fox (1954 : 21), has estimated the population of Pala'wan as 9,000 and Tagbanuwa as 7,000.

Physically, Pala'wan do not differ much from other ethnic groups of Palawan island. But they differ much with Muslim and Christian immigrants. In general, the Pala'wan are not tall and well-built. When compared to the slit eyes of other Philipinos, Pala'wan eyes are bit shallow, broad, and sharp. The nose-form is the same as Malayan type—broad and small.

The dress of Pala'wan women is a piece of cloth rolled around the waist and down to the knee. The cloth they choose is a bright mixture of red, white and yellow. Women, in interior settlements, where the missionary activities are less, do not wear blouses or any cloth above the waist. Men wear G-string; and a shirt over it when they go out to other settlements. Young boys and girls of 6-7 years age group wear one piece of cloth.

Generally, Pala'wan women grow long hair combed and rolled (braided) into a pigtail. Among

men, elders also grow long hair as a status symbol. Bracelets, commonly made by grounding sea shells, and rarely a metal one, are used by women. There are two types of shell bracelets. One type is broad, both in breadth and dimension with a ring ridge on the middle. These are mostly worn by married and elderly women as a status symbol. The other type is thin, small and ridgeless; often they are made of ordinary sea shells. These bracelets are mostly worn by girls and especially by those who have newly established their households. Men also wear brass bracelets to display their financial status.

Women punch their ears and often a twig is inserted in them. Now, the younger generation and especially those who live near the coasts, use earrings bought from the markets. The hole in the ear, among the older age-sets, serves as a place to keep the coil of native cigarette. Often men have tattoo marks, which is a recent innovation. Pala'wan do not have any tribal or group marks and they do not have the custom of initiation. Outsiders are also accepted into the group through blood brotherhood and adoption of Pala'wan customs.

Pala'wans are shifting cultivators. At all stages of cultivation men perform rituals for various environmental beings. Pala'wan are pagans. Their belief system is vague with simple rituals. All their socio-economic activities are linked with religion and all religious activities are either curative or preventive, and a ceremony is

celebrated at all agricultural and social activities. Religion brings the group together and provides them with social activities such as drinking rice-wine (*tabad*), singing and dancing. Gongs and drums supplement the music to sing and dance. In one word Pala'wan religion is so much socialized that they do not have any other type of dancing and beating of drums and gongs than religious ones.

In one way Pala'wan are monotheists. They believe in one God *Ampo*, who resides in heaven, *Guna*. *Ampo* is represented on earth by *Diwa'ta*, who is the link between the god and the Pala'wan, and all ritulas are addressed and performed through Him. Both *Ampo* and *Diwa'ta* are neither male nor female and they are single. The major differences between the two are—the latter stays on earth to help the man. But he cannot watch or see the difficulties and faults of man like the *Ampo*, who can do this from the heaven. Secondly, only *Ampo* has the ritual power of productivity, whereas *Diwa'ta* is only a media to attain this.

Pala'wan ritual calendar is structured according to cosmic cycle. They celebrate *Pag-Diwa'ta* or the *Diwa'ta* ceremony, on every full-moon and new-moon day. These are the celebrations for the good of the community. The whole community will contribute and participate in it. Other than these regular ceremonies the community or even a kin-group may celebrate the ceremony for curative or preventive purposes. The participation and contribution are made

among themselves and on such private celebrations outsiders attend only on special invitation.

If the ritual is a regular one the native wine will be ready in big jars. The priest drinks and dances first. He will be followed by others. Women only dance and do not participate in drinking. Dancing and drinking go on till late in the night; some time they depart when the wine is finished or one of the participants faints or starts vomiting.

Pala'wans believe in three worlds—heaven (*guna*), earth and hell (*kalubagang*). They do not have any further and complicated information about the hell or heaven, except that the hell is a dark place without fire—where one has to work and lead a hard life. And in the heaven one need not work and it is bright, clean and God lives in the heaven.

Pala'wans do not believe in the (1) transmigration of soul, (2) merit in life and (3) sin. They believe in the existence of three major souls and five minor souls and all the eight exist in man at one time. Soon after the death one of the major souls—*Manyagang kurudwa*, directly goes to hell to undergo punishment for the bad acts. Another—*Nakam*, goes to the heaven to enjoy the fruits of his good deeds in life, and the third—*Marahatna kurudwa*, stays on earth and decays with the body. The five minor souls reside one in each of the five sensory organs of man. This fact is the source of Pala'wan moral life.

Pala'wans' belief in three souls and the fact that there is no rebirth and the presence of Diwa'ta on earth, are responsible for attaching more importance to the present than the past and future. To pala'wan a moral person is one who follows all Pala'wan customs with least violation. To be known as a man of 'good custom' one must respect customary law, which according to Pala'wan is surrendering of individual rights to the group, accept group control and impersonalize all activities. The three concepts of good man, moral man and social man, are incorporated into one which is termed 'religious man'. In this way, the religious and the social among the Pala'wan are practically undifferentiated.

Without the fear of rebirth among the Pala'wan, an outsider may think, that, they would not be having a sense of morality. But their belief in three major souls and five minor souls is a check on them, from becoming immoral. The aspiration to go to heaven keeps a Pala'wan always conscious about the moral life. The belief that the soul goes to the hell and the presence of minor souls in each of the sensory organs of the person prevent the Pala'wan from doing immoral acts. The belief in the third soul and its presence on earth along with the dead has given rise to the custom of ancestral worship and respect for the past generations. This is clearly evident from their counting of ancestors up to four and more generations and respect for the group of elders (panglima).

Social Organisation

Pal'wan society is bilateral. Monogamy is the order. But polygamy is also practised due to many reasons, such as sterility in case of wife (religious and social function), additional helping hand to the family (economic function), etc. Elementary or nuclear family is the basic unit of the kinship organisation. Taking nuclear family as the basic unit or a starting point, we can study Pal'wan society in five different levels—potential family of husband and wife, elementary family of father, mother and unmarried children; bilateral family of relatives of both parents; the village, a unit of matrilocality and village rituals; and a sort of "state", which includes all those who belong to and follow Pala'wan culture.

Marriage

Among the Pala'wan, marriage is the most simple ceremony. Arranged marriages are common. Marriage starts with the expression of the boy's desire to his parents to marry a certain girl. Both the parents and grandparents calculate the possible socio-economic gains to the family and whether the proposed marriage would be incestuous. If they find it suitable, a common friend of both the families is requested to act as a go-between (padunka). The go-between arrives at the girl's residence and conveys his mission to the girl's parents. As custom he is asked to visit them again after three days; and he returns. Within this interval of two days the girl's parents also discuss this

proposal with their relatives, and also ask the opinion of the girl. as women enjoy a large measure of freedom in this bilateral society. With the approval of all, the girl's father visits the residence of the boy along with the go-between, and expresses their approval of the proposal; and invites them to the marriage which is held at the girl's residence on the following day. The following day the groom, his parents and relatives and the go-between arrive at the girl's residence with their marriage gift or fee (unsud), usually a procelain plate. Before the actual ceremony takes place the marriage conditions, if any, are settled and the fee is paid. The go-between, is always an elderly person and acts both as the priest and witness and advises the newly wed to be faithful to each other and blesses them for a blissful life.

After marriage, the boy stays with the girl's parents and works for them. After the birth of a child and with the permission of the parents-in-law, he establishes a separate household.

The process is the same for taking a second wife (dulu-utak). The husband asks the permission of his first wife to take another. She takes the advice and consent of her parents and kinsmen. Her parents and kinsmen think about the pros and cons of his request before giving their consent. It is because, if they give the permission thereafter they will lose their sole right on him. If they do not give permission to take another wife, it might result in a divorce.

Generally, they comply with this request due to several factors. First, among the Pala'wan providing food and shelter to one wife and children from her itself is a difficult task. If a person is aspiring for another wife it means, he is capable of providing for all. Secondly, they also know that any refusal will not bar their son-in-law from taking a second wife. He might as well go ahead without considering the consequences, such as divorce of fine. So they accept certain amount of compensation in advance, which is nominal, and accord him permission.

If the reason to take another wife is purely to increase the productive labour in the family, then the first wife will try to avoid the conflict by bringing one of her younger sister or a cousin. By this the first wife's parents retain the familial authority on the man. The son-in-law will also readily accept such a proposal because this will reduce his additional burden of another set of in-laws. In all these cases the first wife will permit her husband to take a second wife. From this she gets the compensation and in addition to that, one helping hand in the family to do domestic and agricultural work.

Family

Among the Pala'wan the newly-wedded couple continue to stay with the wife's parents till they get a child. Therefore, there is no potential family among the Pala'wan. When a daughter marries, the Pala'wan family

automatically becomes a vertically extended family. After having a child and establishing a household there will be new elementary family and the vertically extended family shrinks back to an elementary family if there are any children. Among the Pala'wan it is also possible that two or more daughters who are already married but childless, will continue to live with their parents along with their husbands forming a laterally as well as vertically extended family. In such cases the parental family remains an extended family till all their daughters establish their separate households. But a family may constitute a husband and wife under two circumstances—either with the death of the child after establishing a separate household or due to the departure of all their daughters. These two situations do not result in the formation of separate potential families, because the old couple would have passed the productive stage and the young would be having children.

Only after having a child a couple are expected to establish their household. This must be proximate to that of the girl's parents. But there is no rule that one should follow his parents-in-law whenever they shift from one settlement to another. But the couple who are still living with their parents will follow them because they are not yet a separate household. Under special circumstances even after establishing a separate household, a girl can go back to live with her parents along with her husband and children.

Inheritance

Pala'wan do not consider land and the houses as real property and the possessor will only get the right to use them. The real property are the gongs, jars and the metal betel-nut containers; which are handed from one generation to the other. If the parents have extra 'property' of the above mentioned type, they will give a portion of it to their sons and daughters as a gift, during their marriage and not as a share. They cannot take this 'away' as long as they stay with their in-laws.

Divorce naturally dissolves the marriage and the potential family. The causes for the divorce are many, such as—adultery, kidnapping the wife, sterility, etc. When a childless couple agree for the divorce, they divide their conjugal property into two equal halves. If the divorce is sought as a solution to the overt action of a spouse, the guilty party will lose his or her right for the common property. If the couple already have children then the matter becomes rather difficult as they have to provide for the children's subsistence. So the group of elders always try to solve such cases by imposing a fine on the guilty party and paying this amount to the other as compensation.

If a person dies without children, the common property will be divided into two halves and one half will be given back to the nearest

consanguineal kinsmen of the deceased spouses and the other half is taken by the survivor. If the couple have a child both consanguineal and conjugal property of its parents go to him. The surviving spouse gets only the right to enjoy it. If the surviving person marries again his or her spouse and children born from this new union do not acquire any right over the common property of the first union

Bilateral Kinship Organization

A marriage among the Pala'wan is an alliance of two kingroups and not of two individuals. But this union does not become effective until the couple get a child. A child will equally represent the consanguineal kingroup or the bilateral family of its parents, its four grandparents and all the kinsmen to the extent of four ascending and four descending generations. So marriage of third degree cousins is prohibited.

A bilateral family, reckoning kinship up to four generations, constitutes a ritual unit as well as a juridical unit. Family members of the consanguineal kingroup (of the third degree) will be under an obligation to invite their kin to all celebrations and to consult them on the occasion of birth, marriage and death.

In case serious family affairs, the immediate consanguineal relatives are directly and automatically involved. Mutual help among them is obligatory. A consanguineal kindred has a right to ask for help from his relatives in paying heavy fines laid on him or her. When the divorce case is on trial, the nearest blood relatives support their kin

and try to disprove the charges. When the offence is proved and a heavy fine is laid they try hard to minimise it. If a person is killed by another group the surviving kinsmen avenge the death. The Pala'wan value for their kin's life is great. They enquire in detail into the cause of death to know whether the surviving spouse has any hand in it.

Another obligation among the nearer consanguineal kindreds is to play the role of jural leaders in inter-familial conflicts. They also act as marriage go-between which has a prominent and an important place among the Pala'wan since he can reduce the marriage fee and relax the marriage conditions.

Analysis of Pala'wan Kin-Terminology

Though Pala'wan kinship organization includes bilateral families of eight generations each, the terminology is simple. This is due to the use of collateral terms to address consanguineal kins. Pala'wan also ignore sex and generations in their terminology. Other significant features are the avoidance of names and making sex identifications while addressing an affinal kin of opposite sex, who belong to the ego's generation.

Sons and daughters, irrespective their order of birth, are addressed *Yegang*. To show sex differentiation *ne-lalake* for the boys and *ne-liban* for the girls, is used. Status of the eldest child is also shown in the terminology. An eldest son is referred as *Uka-ne-lalake* and the girl *auka-ne-libn*. Similarly, the youngest, the youngest son is referred as *ari-ne-lalake* and the

girl, *ari-ne-liban*. An elderly child addresses his or her younger sibling by the term *ari*. The younger sibling use *uka*, to address any older sibling, irrespective of sex and order of birth.

Brothers-in-law, wife's brothers or sisters' husbands are addressed as *bayao*, irrespective of their age differences. So does the sisters-in-law. But a different term—*Ipay*, is used to address an in-law of opposite sex. This is an example of an instance which indicates speakers sex. Cousins, irrespective of their sex and order of birth address each other *agsa*. For reference a female cousin is called *agsa-ne-libon* and a male cousin is called *agsa-ne-lalaki*.

All the four grandparents—FF, MF, FM and MM are addressed as *Apo*. Sex distinction is shown while referring, by adding *ne-libon* for the grand mother and *ne-lalake* for the grandfather. *Apo*, is also used by the grandparents to address their grandchildren irrespective of their sex and order of birth. In this case both the sex and generation are ignored. This is quite common among the Pala'wan kin-terminology in addressing second ascending and descending generations. This according to Murdock (1949:103), is due to biological status of the persons—grandparents and grandchildren, who are much too apart in generational distance.

Pala'wan use a common term *nampil* to all children-in-law. But a special character of these kinship terms is, to show sex differentiation the terms such as *libon* and *lalake*, are added. But while mentioned in third person the person is referred as the spouse of so-and-so.

Another collateral term *kumana-kan* is used for the children (of both sex) of siblings of both sex. *Maman* is used to address all types of aunts, either paternal or maternal. Step father is also addressed as *maman* and step mother as *minan*. But a term *negkesubli* is used for reference. Similarly a common referential term *nesublian* is used to refer step children of both sex. Another word *bais* is used to address one's children-in-laws' parents. All the four persons, irrespective of age and sex, address each other with this term. There is no descriptive term for these kinsmen. But while referring to a third person, it is referred as the father of so-and-so's spouse.

WIDER PALAWAN SOCIAL ORGANIZATION

Pala'wan do not have any other well organized social group which is wider than that of the bilateral kindred group. But a Pala'wan settlement can be considered a 'community' though the settlement pattern is scattered. Because it shows community sentiment and inter-relations such as celebration of pag-Diwa'ta, drink parties, etc., which are all communal affairs.

Next to the settlement Pala'wan have a loose social organization, by area, where the group lives. Outwardly, this appears like a political or a tribal division. But it is not. Because it lacks many things such as common customs, a chief, etc. The Pala'wan divides the area of their settlement into four divisions, a geographical factor linked with the native value judgement. They are—(a) *Tao'dagat*, area nearest to

the coast, (b) *napan*, next to it, (c) *daya* and finally (d) *bukid*, the area in the interior most portion of the forest or the mountain. According to the Pala'wan cultural value, the people who are living near the coast are considered as people with 'bad customs' (see further for the meaning of this word) and are considered low. The basis for this is the Pala'wan belief that a good Pala'wan is one who lives away from outside world, deep in the forest, securing food according to the Pala'wan means and performing various rituals towards environmental spirits. But a Pala'wan who lives near the coast usually comes in contact with the outsiders, eat fish, does not follow Pala'wan customs closely, and so considered a low group. The status of the settlement increases or decreases with the distance from the coast. To explain this the Pala'wan give an example of a river taking its birth in a mountain flowing down to the sea and as it nears the sea its purity becomes doubtful. So also the people become 'dirty in their customs' as they go nearer to the coast.

This distinction among the Pala'wan settlement can be noticed in their marriage practices. A tao'-dagat Pala'wan who wants to marry a girl from any of the groups living

above his group, has to pay a very high marriage fee. Contrary to this giving a daughter to a person belonging to a group which stays upwards is generally preferred by those who have settled near the coast. Pala'wan have different words for these two ways of marriage-down stream (*balong*) and up-stream (*sulek*). The marriage fee increases with an increase in the distance between the persons and it will be very high if the marriage takes place between the persons of two polar settlements or groups.

The Pala'wan lack a still larger social organization which includes all the above mentioned types of settlements. They always recognize the strangers on the basis of the cultural differentiation. They always look in him for the possible Pala'wan cultural traits. Those who do not have similar traits are considered as 'outsiders' and all those who show identical cultural traits as 'their men'. The basic traits for a formulation of a Pala'wan community is cultural similarity. Only in this sense one can see all Pala'wan considering themselves as one group. But this group identity is just sentimental and is not expressed or shown in the form of a wider organization — a tribe.

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Adibasi 'Handia' Beverage

SATYA PRAKASH GUPTA

The consumption of alcoholic beverages has been referred to in Vedic literature. It is believed that *soma* of the ancient Aryans was an alcoholic drink although the raw materials from which it was made are not known.

The *handia* beverage forms a very important part of the food of Adivasis. The preparation of *handia* beverage by the *Asur* is described here. The *Asur* locality is known as the Netarhat group of Plateaus. These hill ranges run from south to north and their top is locally called as *Pat*. The *Asur* now inhabit these pat regions of Ranchi (4,999), Palamau (804) and Purnea (16) districts of Bihar (1961 Census). Their traditional art of iron smelting is dying out because of extension of land code in the area for the public need of preserving jungle from wasteful exploitation. Bachelor's dormitory known as 'DHUMKURIA' is an important institution among them.

Handia Preparation

It consists of two main operations the preparation of fermenting cake known as 'biro', and the fermentation of rice or millet.

'Biro' the medicinal cake— Fermentation cannot take place without 'biro'. Generally, it is sold in tribal markets in small white balls and the manufacturers keep the ingredients secret. The author's information reveals that roots of *chilmili*, bark of *Koreya* (HOLARRHENA ANTIDYSENTRICA) leaves and bark of *Patawn* (PUTRANJIVA ROXBURGHII) are pounded prepare these balls. Other herbs which are employed include roots and fruits of *Mowna* (RANDIA DUMETORUM), roots of *Huyar*, *Nilkanth*, *Chata*, *Pathal Kumhra* and *Chitwair*. A dozen such herbs are reported to be in use. But only three are employed at a time for the preparation of *ghuni* (herbal mixture powder). The other ingredient used in the preparation of *biro* is unboiled karhani or karanga black paddy which is also powdered. The *ghuni* mixture and rice powder are then mixed with water to make soft dough and small balls are prepared out of this dough. These balls are then dried in a basket lined with gunny, cotton wool or straw. The different layers are also separated with straw. The basket is well covered with gunny or the similar

material and kept near the fire place. The balls take three days in the summer and five days in the winter to dry up. After this, balls are further dried in the sun for 3 to 4 days and then kept for six months or so. During this period these take a white coating. These are then preserved in suitable containers for future use. Generally, *biro* is prepared in the months of November-December just after the new rice is harvested.

Preparation of Jharanui (Handia Beverage)

It is prepared from boiled rice, maiz, *gondli* or *marua* (ELEUSINE). The rice or millet to be fermented is first partially cooked over the fire in a *Handia* (earthen cooking pot). Only so much water is added which can be absorbed by the rice or the millet. It is next taken out, cooled and thoroughly mixed with powdered *biro*. The *biro* is mixed in the ratio of 4 balls of 'biro' and one *Paila* (about half seer) rice. Another earthen pot (*Handia*) is dried on the fire and then cooled. One ball of 'biro' is powdered and sprinkled on the inner surface of the *Handia*. The material to be fermented (rice or millet) is then put in it. A red-hot charcoal is also put in it before closing the mouth of *Handia* with straw, etc. The pot is then kept in a shaded cool place. The beverage is ready within 4-5 days in the summer and 8-10 days in the winter.

Jharanui is then taken out from the *Handia*. The liquor drawn off looks like milk. First day it is taken as *Jharanui* and on the

second day as *Botha* when it is extracted with water.

The entire process is carried out by the women and consists of mixing the softened rice with *biro* which has the power of changing starch into sugar and the latter into alcohol, the two changes going on simultaneously.

The same method is adopted by all the tribal people with local variations who prepare their own beverage at home, chiefly from rice and sometimes from millets, such as *marua* (ELEUSINE) and so on. The Birhors at times prepare it from *khooloo* and *ikhoosooa*.

Consumption of 'Handia'

To many tribes, this is indispensable to their culture. They can not think of any occasion or function without sumptuous supply of their drink in child-birth, in daily life, in marriages, in worshipping of spirits, in curing diseases, in receiving the guests and as a gift to the dead. Generally, 'Handia' is consumed freely by all members of tribal community. It also has a social and religious value as it is taken especially during folk dances, village meetings and ceremonial festivals. A substitute for this drink is not available.

One observation in this connection with regard to tribal communities is worth recording. When they drink the fermented liquor they do not reject the residue of

the cereal that is left behind. It is also consumed, therefore this practice probably ensures the full utilization of food value of the fermented material.

The nutritive value of handia beverage could not be ascertained because of lack of facilities for

biochemical analysis at our end. To give an idea, an average nutritive value per 100 c.c. (3.5 Oz.) together with average intake per head/day of *Apong* (Abor rice beer), used by the aboriginal tribes of Abor Hills (NEFA) is quoted below from 'Investigations into the Dietary Habits of the Aboriginal Tribes of Abor Hills' (Sengupta, 1954).

Apong	Alcohol g	Colo- ries	Protin g	Carbo- hydrate g	Calcium m.g.	Phos- phorus m.g.	Iron m.g.	Thia- mine Vit. B m.g.	Niacin nicotinic Acid m.g.
Average value per 100 c. c.	3.5	59	0.9	8.3	15.2	68.3	0.9	2.5	0.6
Average Intake per head/day.	22.5	295	4.5	41.5	52.5	341.5	5.8	12.5	3.0

The Saurias of Santal Paragans call *Handia* beverage *Mecha* and fermenting cake *Bakir*. Besides *Handia* beverage, the Sauria also drink the toddy from Palmyra Palm as well as of Date Palm. The toddy from Palmyra Palm is collected during the hot season and from Date Palm during the cold season. Distilled liquor is generally purchased from the market. The consumption of distilled liquor is maximum among the Korwas. They even distil themselves 'Mahua daru' which is a powerful stimulant as well as an astringent tonic and appetiser. It is said that in Bhandaria Block of Palamau district, the Korwas occupy the foremost place in the consumption of distilled liquor. There are altogether three distilleries in Kanjia, Bargar and Kutku with-

in Bhandria Block. The consumption of distilled liquor can better be imagined from the fact that the total outlay for five-year developmental schemes of the blocks was twelve lakhs and the tribal people of this block spent about ten lacs for the purchase of liquors from these distilleries. Thus, it is one of the great obstacles to Korwa development.

In fact, fermented beverages were and are an important part of tribal life and culture because of their social and religious indispensability. The home-brewed liquor from cereals and millets have low alcoholic contents but are rich in mineral and vitamins which help to correct dietary deficiencies. On the other hand, the distilled liquor from fermented *mahua* flower, rice or even cereals is not nutritious.

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Primary Education in Tribal Languages problems and prospects.

COMPILED

Language is the gateway to inter-cultural understanding. It is not only the most distinguishing factor of a culture, it is also its most stable feature least susceptible change in the process of culture contact. The cognizance of the other distinguishing features of tribal culture has played a significant role in the planning of the economic programmes for tribal but, in spite of its supreme importance, the language factor has never featured prominently for shaping their educational development.

That children should be taught in their mother-tongue, especially at the primary level, is an universally accepted principle which hardly needs any elaboration. The constitutional position, as far as the tribal people are concerned in this respect, is very clear, Article 4 of the constitution states this in very clear-cut terms in the following words.

"This State shall promote with special care the educational and economic interests of the weaker sections of the people, and in particular of the Scheduled Castes and Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation". In addition to this Article 29 of the Constitution

makes a direct reference to language. According to the provisions of this article, the tribal people are eligible for protection, as cultural minorities, for the conservation of their language script and culture. This point has been further stressed by the Scheduled areas and Scheduled Tribe Commission, who, in discussing the functions of Tribal Research Institutes have laid special emphasis on "Research in tribal Philology with a view to prepare text books and primers, in tribal languages, collections of folk songs folk-lore, stories of tribal heroes, etc."

Thus, as far as constitutional provisions and State policy are concerned there is a clear-cut mandate for imparting education to the tribal people in their respective languages, specially at the primary stage. However, the actual implementation of this policy gives rise to a variety of problems both technical and general in nature. The extent to which the mandate can be carried out will depend on the availability of requisite technical skill and the effectiveness of the machinery of implementation.

Language of the Tribal Communities of India

About 300 communities in India with total population of 29 million

which have been enlisted as scheduled tribes in accordance with the provisions of the constitution. Slightly more than 100 languages have been classified as tribal languages in the 1961 census, with a total number of about 14 million speakers. This shows that about fifty per cent of the tribal population in India have distinct languages of their own and the remaining half speak one or other major Indian language as their mother-tongue. Most of the tribal languages belong to Austric and Tibeto-chinese families and a comparatively smaller number to the Dravidian and Indo-European families. Again almost all the speakers of Austric and Tibeto-chinese languages belong to the tribal communities. In India there are 65 languages belonging to Austric family with 6,192,497 speakers and 226 languages belonging to Tibeto-chinese family with 3,183,801 speakers. This brings the strength of these two families to 9.4 million. Also there are the speakers of the tribal languages like Gondi, Kui and Kurukh with about three million population belonging to Dravidian. Languages of the Bhil and Banjari with about three million population belong to the Indo-European family.

The above figures would indicate that about half of the tribal population have distinctive problems of education and communication. Even though about five million tribals speak subsidiary languages in addition to their mother-tongue, that the special problems of their education does not become less acute for that matter. A committee of experts, sponsored by the UNESCO in 1951 on the use of vernacular languages in education

have reported that a lingua franca is not an adequate substitute for the mother-tongue, unless the children are familiar with it, before coming to school. Here the crucial question is, whether the tribal children learn the regional languages before coming to the school in the areas where most of the tribals are bilingual. The investigation conducted by the Tribal Research Bureau, Orissa, has revealed that the children in these areas have little or no acquaintance with the Oriya language before coming to school. Such may be the experience in other States. At least in the early years of their education, these children face the same problems as those in the areas where the population is much less bilingual.

The Problems :

The problems connected with the preparation of text-books in tribal languages may be enumerated as follows :—

I. *Determination of Policy*—In discussing the problem of imparting primary education in tribal languages the first question involved is, to what level it can be carried out. Imparting primary education in tribal languages has two very important points in its favour. Firstly, teaching in tribal languages can make primary education much more effective and secondly, it can popularise primary education and help to get it accepted by the tribal people. Whether this policy can be carried beyond the primary stage is a question which should receive careful attention. At present the tribal languages are not equipped to be vehicles of technical education and they are also too

poor to be the medium of general education. Besides this, education in tribal languages after the primary stage would call for an expenditure and the pooling of technical and administrative resources at a scale which the State can ill afford. This may also result in the further complication of the language problem of the country and fragmentation of regional social life without any corresponding benefits to balance. In view of this it would be worthwhile to confine our efforts to primary education only. After the primary level, education may be given in the regional language. This can not of course be the universal policy and there would be exceptions in certain areas as would be shown later.

2. Criteria for selecting the tribal languages which should be the medium of primary education. There should be proper criteria for fixing up priorities for selecting tribal languages for primary education. For this purpose the tribal people may be divided into three categories. In the first category would come those who use a tribal language as their mother tongue and who do not speak any subsidiary language. In the second category may be placed those who use a subsidiary language but who do not know the regional language. In the third category may be placed those who use regional language as a subsidiary language. For the people in the first category the problem is very urgent and they should have priority over other for receiving primary education in their own mother tongue. The problem is equally urgent for the second category as teaching in the

regional language involves the same difficulties as are experienced in the case of the first category. The problem may not be so urgent in the case of the third category. However, it may be noted that in this case the knowledge of regional language as a subsidiary language may neither be sufficient nor very effective as medium of communication for the age-group 6—11 for whom primary education is meant.

3. The potential student population for each linguistic group should also be taken as guide. No programme of education will be feasible unless there are sufficient number of students. The area of operation of a primary school is very small and among the tribes this area is further limited by geographical factors and social isolation. The area which would serve as a unit for primary education should therefore be determined and its minimum student potentiality on the basis of the individual tribal languages should also be assessed. Tentatively it may be suggested that for the time being a total number of 100 potential primary students within a radius of five miles should be accepted as the unit and if ten such units can be located for a linguistic group it would have a claim for primary education in its own language. On this basis the size such problems as preparation of text-books and training of teachers can also be determined.

4. *Numerical Strength of Tribal Communities*—If the tribe is a small one and if its population live interspersed with other population, it is obvious that it will not have

adequate numerical strength for recognition in the secondary stage. In the primary stage its dialect should be used as a bridge language for switching over to the regional language. If the tribe is a fairly big one and there is a region where practically the entire population belongs to that tribe, an altogether different approach would be necessary. The tribes like the Khasi, Garo and Lushai of Assam belong to this category.

Recognition is to be given to their language even at the secondary stage, it is obvious that in the primary stage textbooks in all the subjects should be in the tribal language. It is of course desirable that the regional language should be taught as a language subject from class III onwards. The position is however complicated in case of very big tribes like Santal, Gond, Bhil, who are dominant communities in several but frequently live interspersed with the general population. Their levels of literacy are also not high, they, therefore, cannot provide enough number of students in the secondary schools established in their areas. Economically they are very much dependent on the general population and can not do away with the respective regional languages. In case of such tribes, their mother tongue should be used as bridge languages for switching over to the regional languages. But even as bridge language, there would be some difference between the languages of these tribes and those of the very tiny tribes which live completely mixed up with other population. In case of the latter, the switch over should take place during the

third year of the primary stage, whereas in case of the tribes like Santal, Gond, etc. the switch over may coincide with the completion of primary education. In fact, in case of such tribes, their language should be taught as language subject even in the secondary stage, provided that it is offered by 40 or more students in the school.

Existence of separate script and written literature—Excepting a few tribes, like the Khampti of N.E.F.A., and the Bhutias of the Sub-Himalayan region, do not have separate scripts or written literature. During the last few decades, a number of books have however been written in many of those languages, specially by the Christian missionaries, in Roman and the respective regional scripts. Some books have also been written by some educated tribal people. In spite of all these, it can not be said that there is any planned development in case of most of the tribal languages. For example Santali is written in Roman, Bengali, Devanagari and Oriya scripts besides some more scripts invented by some educated Santals. Because of their deep involvement in diverse psycho-historical processes, the adoption of one single script to the exclusion of others poses a serious problem.

This problem seriously retards the preparation of text-books and other literature in Santali language. The picture is more or less the same in case of other similar languages. The solution to this problem can be achieved by attacking it from diverse technical and administrative angles.

6. *Problem of Bilingualism and Borrowing from other Languages*—

Generally the adult males of the tribal communities speak a subsidiary language in addition to their mother tongue. In certain areas more than one language is used within the same family. Among a group of Gadaba in the Koraput district of Orissa the elderly parents speak Gutub (belonging to the Mundari family) between themselves while they speak Oriya with their children. This throws up the problem of differentiating between the mother tongue and the ancestral language. Ancestral language is to be defined as the mother-tongue of the mother and father in matrilineal and patrilineal societies respectively. The mother tongue on the other hand is the language which a person acquires during early childhood as the medium of conceptualisation and communication. Where there is a difference between the ancestral language and the mother tongue, it would be appropriate to introduce the concerned tribal language as an optional subject.

7. *Contrary Attitude of the Tribal Elites*—

In some cases the tribal elites are unwilling to have text-books in their mother tongues. For instance, mention may be made of Sadri language in tea-plantation areas. As already noted, this is a corrupt admixture of many languages. There is feeling among the tribals that if books are written for them in this pidgin language, they will be considered to be culturally low and degenerated by their brethren living in other areas. They are therefore opposed to have text-books of written or written literature in Sadri, but on other

hand they very much desire that teachers in primary schools should know Sadri language so that they can explain the lessons, written in text-books either in Hindi or regional language, through the medium of Sadri.

8. *Orientation Training and training of teachers*—

It would be necessary to provide orientation training for the text-book writers at the first stage and the primary school teachers at the second. The training of the text-book writers should be organized in accordance with principles enumerated earlier. The help of tribal people from different linguistic groups must be taken for this. This training should be both rigorous and quick and should be planned as workshops, at the end of which the trainees would be required to produce text-books in different tribal languages. As far as specific tribal languages are concerned this training is to be non-recurring.

The Orientation training of the primary teachers is essential and should be organized on a recurring basis to train batches of teachers in succession. The aim of this training should be as follows :—

- (a) to acquaint the teachers with the rudimentary principles of linguistics.
- (b) to break the inhibitions due to an ethnocentric attitude towards language.
- (c) to acquaint them with tribal ethnography.
- (d) to train them in new methods of teaching.

- (e) to impart analytical knowledge in specific tribal languages.

In order to be effective this training should also be both rigorous and quick. Much time and effort can be saved if tribal people to different linguistic groups can be recruited as teachers.

9. *Ecological basis of text-books*—While preparing the text-books due cognizance should be taken of the social and physical environment of specific tribal areas. The material surroundings and the non-material activities with which the children of different tribes are familiar should be carefully enumerated and graded in order of complexity provide the material for text-books for different age-groups. This enumeration can be undertaken by the co-operative efforts of Anthropologists, Linguists and local tribal people.

10. Regional language should be taught as foreign language to those students who have received their primary education in tribal languages. Teachers should, therefore, be trained in the methods and techniques of teaching regional language as foreign language. It

may also be necessary to reorient text-books and courses of study of the higher classes to suit the purpose.

11. *Evaluation*—The programme of primary education in tribal language being a new venture, a thorough evaluation after the primary stage and periodical evaluations afterwards would be required to determine its effectiveness.

The evaluation of the programme should lay emphasis on the following points:—

- (1) How far the programme has been effective in attracting progressively large number of students towards primary education.
- (2) The internal efficiency of the programme—how far it has been successful in to compete with other mind.
- (3) How far the students receiving primary education in tribal languages are equipped for further education and to what extent they are above to compete with other students.

SOURCE

1.—Primary Education in Tribal Language—Dr. Kulamani Mohapatra—Published in Adibasi 1966-67—Number two.

2.—Languages of the Tribal Communities of India and their Role in Primary Education—Dr. B. K. Roy Burman (unpublished.)

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