

# Food Consumption Pattern and Associated Habits of the Bhil Tribe of Dhar District of Madhya Pradesh

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## Abstract

In-depth study was conducted on 44 families of two selected villages of Bagh Block of Kukshi Tehsil of Dhar district to observe the food consumption pattern of Bhils, their various ways of obtaining food including the associated habits, beliefs and notions. Besides, information on special and selective foods taken by them during pregnancy, lactation, illness including festivals and ceremonies were sought. Also the information regarding change in food intake during different seasons and lean days were obtained. The local key peoples such as teachers, leaders, sarpanch and doctors were also interviewed to seek supportive information.

The diet of Bhils primarily consists of cereals and pulses. Seasonal vegetables and fruits are also consumed if grown/available in the field/forest. Milk & milk products and Sugar, are observed to be almost absent from their daily diet. However the consumption of ghee/oil was also observed to be poor. Food is cooked and eaten in privacy because of strong belief of existence of 'Dakin' or Evil Spirit. Women do not taste or nibble while cooking with a concept of becoming its 'Jutha'.

Wheat, rice and non-vegetarian dish are considered to be socially prestigious. The tribal prefer to consume these at each festival and ceremony along with the indigenous liquor, 'Mahua'. The liquor is such an integral part of tribe's life that every rite and ritual from womb to tomb begins and ends with it. Wheat porridge with 'Gur', 'Coconut' and 'Desi Ghee' is believed to be nutritious and is given to newly delivered women for initial few days. Also, a few foods such as fishes, chillies, full liquor and papaya are tabooed during pregnancy due to prevalent beliefs and notions.

Sick persons are generally kept deprived from food initially to speed up recovery. Liquids are, by and large, prohibited to diarrhoeal patients irrespective of age and sex. It is apparent from the findings that the quality and quantity of food consumed is largely depend upon the availability and deficient in all essential elements like protein, fat, sugar and vitamins.

## Introduction

The tribal population contributes significant preponderance (8.2%) according to Census of India (2001) to the total population of the country. Several studies conducted on various tribal population living in different parts of India have reported them to be socially and economically disadvantaged groups and their diets to be nutritionally deficient (Singh and Rajyalakshmi, 1993; Mishra, Singh and Chakravarty, 2002; Taneja and Saxena, 1998; Murugesan and Ananthalakshmi 1991). Among the tribal groups, it is perhaps necessary to understand each tribe because their living style is different from each other and the general population too and further they live in dense jungles and near to nature. It is obvious that food problems and habits of different tribes are bound to be different from those living in urban and rural areas.

Food is a pre-requisite not only for attaining good health but also for maintaining adequate growth and body equilibrium. The choice of food is deeply related to life style of an individual and above, in which he is living. However the food habits are greatly influenced by thoughts, beliefs, notions, traditions and taboos of the society Apart from these socio-cultural barriers, the religion, education and economic factor do alter the food behaviors (habits). These factors are the determinants of the food pattern of the individuals in a given society but bound to vary from a society to other, one area to other and so on.

Pingle (1972) also reported that food consumption of Kolas and Maria Gond of central Province depends largely upon their socio-economic condition. Mahadevan (1962) reported that the deep rooted ethnic and cultural practice influence the choice of food of rural and urban people as well but economic condition had a significant and contributing factor to determine the choice of food of any community.

The present study has been carried out to view the food consumption and dietary habits of Bhil tribe vis-à-vis to their socio-cultural system. This is the third largest tribal group of Indian sub-continent (Bhasin, 2004). They predominantly inhabit in Madhya Pradesh, Gujarat, Rajasthan and Maharashtra. In addition the information pertaining to the ways of procuring food and how do they manage during difficult days and at special occasions were sought. The outcome of such studies helps to understand the existent health related problems and associated factors responsible for the same so that future planning can be done keeping the lacunas in mind.

#### Material and Methods

The present data has been collected from the Bagh Block of Kukshi Tehsil of Dhar district. Two villages namely Agar and Ghogdhadi were selected purposively in such a way from the block that one village (Agar) was near to the primary health centre (PHC) having the health facilities in the vicinity and was also near to the urban areas. The village (Ghogdhadi) - a remote one devoid of basic health facility and was not easily approachable. In these two villages, the families of Bhils and Bhilalas were only residing. Bhilalas though consider themselves superior than Bhils, yet ethnically they are not different. Here, for all purposes, they are referred as 'Bhils' only.

Initially, the census of the selected villages was conducted to obtain information on age, sex, literacy, occupation, land-holding, and family size. After this, 30 households/ families from each village were selected in such a way that it may represent the entire village. Out of 60 families, forty-four families could only be interviewed in-depth to understand their day to day food consumption pattern and associated habits. Information concerning how do they manage during difficult days and what type of food they consume during illnesses, pregnancy and lactation etc.were sought. Data for the study was gathered from Oct 1985 to Feb 1986. Apart from this, cooking and serving pattern was also inquired. Though there was a structured schedule with a set of questions yet clarifications were made whenever required. The method of cooking and cooked food of few families of Agar and of Gogdhadi was also observed. In addition, the key people of each village such as Badwa, (local healer), Sarpanch and teacher etc. were interviewed to obtain supportive information.

## Results

More than 90% of the Bhil populations of the two villages were primarily involved in agriculture. Only about 5 % of the population were engaged in occupation other than those of agriculture, cultivator or as agriculture labor. They are completely dependent upon the rain water for irrigation. Due to poor irrigation means, they take only one crop in a year on which they survive for the entire year. The chief crops which they grow in their fields are 'Maize', 'Jowar', 'Savi', 'Bhadi', 'Kodu', 'Kutki', 'Urd', 'Tuar' and 'Moong'. Besides, the seasonal vegetables are grown in the kitchen garden. Both male and female members of the families work in agriculture field from sunrise to sunset.

The size of land possessed by them was ascertained. It was found that average land per household of village Agar was around 6.6 bighas while in Goghdhadi, it was 8.1 bighas. Nearly 50% Bhils of the two villages possessed land below 5 bighas. Landless bhils in village Agar were 2.6% and it was 7% in Goghdhadi. It may be mentioned that the land size owned per household and in turn the crop yield was not significantly different which can reflect any variation among population of two villages. The wages are also earned by them through various other means. The cows, bullocks, popular birds and goats were reared to enhance their income. Female literacy rate was almost zero while the 15% male bhils of village Agar received education up to middle class with an exception of two medical graduates.

The average size of the family was 6.3 in village Agar while in Goghdhadi it was 6.5. The difference in family size of two villages was not found to be significant. Twenty percent of the families had 7-8 members and nearly 10% of the families between 11-12 members in both the villages. This information indicated the number of mouths to feed. Houses of both the villages were kaccha hut type consisted of generally one room, kitchen and verandah.

After obtaining the above preliminary information, the detailed information from both male and female members of the families were sought pertaining to the food consumption pattern, associated habits, beliefs and taboos vis-a vis to their socio-cultural pattern. The observations made are discussed in the preceding pages.

1. **Cooking Practices:** Bhils cooked and ate their food in much privacy. An outsider or stranger is prohibited to enter in their cooking area. It is linked with the belief of existence of 'Dakin' or 'Evil spirit' or 'Eye', which may manifest anger through loss of appetite, sickness, convulsions etc. and can even take life of the person also. This superstitions and belief of Dakin is deep rooted and forms an integral part of Bhil's society as observed in both the villages. Food is cooked traditionally on Chulla in earthen vessels. It was done with a belief that food does not get spoiled in these vessels. Food is generally cooked twice in a day. They do not taste or nibble while cooking food with a concept of becoming 'Jutha'. Before cooking, a house-lady cleans the entire house and washes the utensils and her hands to remove bad effect due to evil spirit etc. It was commonly observed in both the villages that water used for drinking or cooking is generally kept uncovered with a belief that it would remain cold. The concept of hot and cold foods is deep-rooted among them. Cold foods are strictly avoided in winter and vice versa are also true.

'Maize roti' is prepared after kneading the Maize flour (Flour is milled by hand mill) with hot water. They also made 'PANIYA' from the maize, which is a favorite tribal food. It is not different than maize chapatti but maize doe is directly roasted on slow combustion. 'Rabdi' (Maize porridge) prepared out of Maize crushed, is another tribal dish. The crushed maize is boiled in water till it gets cooked. Buttermilk is poured and salt is added before eating. The addition of butter-milk is subject to availability. Most of the female respondents of both the villages confided that they hardly had butter-milk. They also prepared maize curry from maize flour as a substitute for vegetable. Hence they eat maize with maize.

'Dal' was cooked to split only. Same was true for vegetables which were found to be hard in eating. It was categorically told by every respondent of both the villages that vegetables were only cooked when available in the field otherwise not. While conducting this study, 'Lauki', 'Cucumber', 'Bhindi' and 'Bringals', 'Green chillis', 'Dhania' and 'Podina' were found growing. Female respondents of both the villages were asked, 'Do they saunte vegetables or pulses with Ghee/Oil'. The negated reply was given by most of the women. They saunte only when there is a special guest or during ceremonies/festivals. Pulses and vegetables were not washed before cooking. As observed, preparation of green chillies either as chutney or vegetable was very common rather a part of their daily food. They also made use of fresh coriander and podina in great amount with a belief that these keep their digestion fit/ proper.

The belief of the existence of Dakin and evil spirit acted as barrier to observe their method of cooking as well as serving. However, with a little initial difficulty, food at the time of cooking as well as serving was examined in 30 families

2. Food Consumption Pattern: The diets of bhils of both the villages primarily consist of cereals and pulses. Among cereals, their diet is confined to Maize and Jowar. Besides they eat other cereals, like Savi, Bhadi, Kutki which they grow in their fields. However, rich tribals eat wheat and rice comparatively more. The Maize or any other cereals are eaten either as Chapatti, Gruel or cereal porridge, locally called 'Thuli'

As regards, pulses, they eat frequently 'Moong', 'Urd', and 'Tuar'. However, the seasonal fruits and vegetables are eaten by them, if available, in their vicinity. 'Cooked Dal' found to be much diluted with water, with lot of red and green chillies. Intake of vegetables compared to pulses was low.

Hardly any respondent of these villages told that they consumed milk despite they domesticate buffaloes and cows. To the extent, they denied to give milk to infants and small children. Neither, they are in the habit of drinking tea. This shows that the consumption of sugar is almost absent from their routine diet. Although all the bhils are non-vegetarian and extremely fond of consuming fleshes of animals and birds, yet its consumption is limited to only ceremonial and festival days.

Bhils of the present study told that they are not able to have square meals a day from available forest produce and crops as they took only one crop per year because of poor irrigation means.

a) Eating Practices: Normally, food is eaten twice daily, on around 11-12 a.m. and another in the evening before it gets dark and in total privacy. It was observed that chapattis are eaten during day time while in the evening; they only consume either

gruel or porridge. On enquiry, it was told that less amount of grain were consumed for cooking porridge/gruel and so that more members can eat. Boiled pulses or vegetables were generally eaten. It is perhaps sheer compulsion arising out of poverty. During the day time, family members ate whenever they feel hungry. At evening when all the family members are together, children irrespective of sex, get priority followed by men. It was interesting to note that couple never shared food in the same plate. As told, it is not always that full share is left for the house lady. Of course, it was more or less related to the economic condition of the family.

b) Alcoholic Practices: Drinking of indigenous liquor, 'Mahua', was a popular practice among Bhils in both the villages. Men were found to be habitual drinker and consumed almost daily in a good measure, while the women consume occasionally and during festivals and ceremonial days. The liquor is locally prepared by them on an improvised distillery. It is worth mentioning that drinking 'Mahua' among them is not mere a habit. It has high ritual sanctity to the extent that their every rite and rituals starts from womb to tomb by offering liquor and ends with offering liquor to gods, goddesses and consuming the same too in good measure.

c) Food on different occasion: Apart from the influence of season whatever little may be in their routine diet; the choice of food was largely determined by their cultural practice and existed beliefs. Certain foods were socially prestigious while others were treated as neglected food. Almost every respondent regarded wheat; rice and non-vegetarian diet are the best food and energy giving and nutritionally had high values.

Every bhil has a strong desire to consume these whenever there is an opportunity. It is more or less become customary in their society to prepare a dish out of rice, wheat and non-vegetable at each ceremony / festival which they prefer to consume with liquor. However 3/4<sup>th</sup> of the respondents divulged that consumption of such foods during festivals also depend upon the purchasing power.

d) During pregnancy & lactation: No special foods are being consumed during pregnancy. However, few foods such as fishes, chillies, full liquor, papaya are tabooed socially as these are considered to be hot and may abort the fetus. Strongly odoured foods ('Amla', 'Dhania') are also prohibited as it caused nausea. It is very interesting to note that sugar dissolved in water under such condition was also prohibited. Twinned fruits and tuber are also prohibited with a belief of having twins. Female respondents told to loss appetite during pregnancy since the fetus took the space. Soon after delivery, women are preferably given wheat porridge at least for initial seven days. 'Gur', 'Desi Ghee' and 'Coconut' are added to make it more energetic though the fact can not be denied that its provision is largely related to the economic condition of the family. Butter-milk is preferentially given to lactating women as it enhances the flow of breast-milk if the resources permit.

e) Food during illness: No special foods are given to the sick person. On the contrary, a sick person was kept devoid of food initially for quick relief or light food, such as 'Dal Soup', 'Dilute Rabdi' is given in small quantity. The majority of them considered ill only when they were practically immovable. So it is true in getting treatment and taking food. During the study, several patients of diarrhoea and dysentery came across irrespective of age and sex. It has been told by each and every person that they have virtually reduced the consumption of liquid food even the simple water as the liquid food

would enhance the frequency of stools. A few patients told that they were not consuming any kind of liquid food though doctor had advised them to consume liquids in larger quantity. This explained their deep association to the set beliefs.

f) Food during crisis: Questions pertaining to change in food intake during crisis and its management were inquired. In response to these questions, 16 families of Ghogdhadi and 9 of Agar told that they often face difficult times and hardly afford to have square meals a day. At the time of crisis they depend upon wild leaves, fruits and seeds of various plants which can be eaten either raw or cooked. It has been observed that they ate the 'kasha' either as fruit or as vegetables. Besides our own observation, local doctors told that during difficult days, tribals depend upon it for days together. Doctors were of the view that its excessive consumption to an extent is responsible for spread of diarrhea, dysentery and cholera, every year. 'Sandeshra' is another common fruit which satisfies both hunger and thirst and other fruits are 'Tammer' and 'Tamra'. Leaves of 'Goinda', 'Rajara', 'Keria', 'Sagara', 'Phangs' and so on are also eaten in large quantity. Grains of 'Jhandra' are used to prepare Chapatti which is like wheat Chapatti in taste.

In this connection the views of an educated bhil are here endorsed who told that these tribals hardly get two square meals a day except a few relatively rich (10%). Many tribal families depend on forest produce for one meal and for second one on agricultural produce throughout the year.

The capacity of bhils is very limited to purchase of any edible items or otherwise. In order to purchase petty things like oil, sugar and salt, tribals had to sell: (1) a portion of the cereal grains or pulses (2) jungle woods (3) Desi Ghee prepared at home and honey gathered from the forest. This indicated the extent of purchasing power and economic conditions. In this connection, not even a single respondent had admitted that they could afford to buy the basic essentials such as cereals or pulses or vegetables even when they had nothing to eat. During crisis, they depend upon forest products to survive.

The routine dietary intake of bhils of both the villages is alike and their life style including associated beliefs in near and far villages were not different. The routine diet remained more or less same and marginally affected by the change of season. Though the concept of socially prestigious and nutritious food is prevalent yet their consumptions are subject to the availability and linked with their economic condition.

Most prevalent method of cooking adopted by Bhil is boiling and roasting practices followed by fermentation. Similar cooking practices were observed on Oraon tribe of West Bengal by Mittal and Srivastava (2006) on different tribes of M.P. under ITDP by NNMB (National Institute of Nutrition, 2000). They also reported almost no consumption of milk and rare consumption of non-vegetarian diet by Oraons and different tribes of M.P. respectively. Further they observed that daily consumption of diet by Oraons was poor and lower than the RDA of ICMR and were nutritionally deficient (National Institute of Nutrition, 1985).

## Discussion

The diet of bhil group under study depends upon the available forest produce and crops but it is not enough to meet the both ends meal. As told their dietary intake indicates hardly any consumption of sugar, milk and its products and low consumption of fat in

comparison to cereals, pulses and vegetables but the consumption of cereals, pulses and vegetables were also inadequate and bhil women are further more sufferers as they eat in the end. Obviously the diets of bhils were found to be deficient in all essential food elements. Similar findings were observed among Oraon tribe of West Bengal by Mittal and Srivastava (2006). Kharwar tribe of U.P., (Mishra et al, 2002) different tribes of Bastar including Abujhmaria of Bastar (Singh and Palta, 2004) and different tribes of M.P. under ITDP reported by NNMB (National Institute of Nutrition, 2000). However the Kharwar tribe reported to consume milk as per availability. Bhasin (2005) also reported that diet of bhils of Rajasthan is highly nutritionally deficient due to insufficient intake of pulses, vegetables, fruit, milk etc., which results into bleeding and spongy gums, mottled enamel and angular stomatitis (Bhasin (2004). All the studies reported above observed low consumption of pulses, vegetables and cereals are less than RDA (ICMR) and are influenced by prevalent belief and practices of each tribe. These authors have reported that these tribes basically prefer to consume the non-vegetarian diet but its consumption is about 2-3 times in a month and/or limited to ceremonies and festivals due to poor economic conditions. Similar observations have been made among the bhils of the present study. Further dietary intake of bhil women under study was noted to be relatively less than those of their adult male counterparts. Basu (1993) and Kupputhail et al (1993) also observed the poorer intake of diet by tribal women of various parts of India and among Khond, Gonds, Porja tribes of Andhra Pradesh respectively (Basu, 1993; Kupputhail and Mallika, 1993). Mittal et.al.(2006) did not observe low diet among Oraon women than males.

Alcohol has a socio-religious sanctity and bhil men are habitual drinker and women consume twice or thrice per week after distilling liquor in indigenous improved distillery. Choubey (1998) noticed the similar practices among the tribals of Bastar (Choubey, 1998). All the studies mentioned above (Mishra et al, 2002; Taneja and Saxena 1998; Murugesan and Ananthalakshmi 1991; Pingle 1972; Mahadevan 1962; Bhasin 2004) including the present one observed no considerable seasonal variations in the diet of the tribal.

Overall it shows that diet of the bhils and also of other tribes referred above are being deficient in fruit, vegetable, cereals, pulses and milk including fat that lead to deficiency of PEM and other several nutrients such as calcium, iron, riboflavin, Vitamin A & C.

Bhil women do not consume any special diet during pregnancy. On the contrary, most of the foods are banned to eat either being hot or cold or strongly odoured or consume space in abdomen. They prefer to eat 'Gur', 'Coconut' and 'Desi ghee' after delivery and consume lots of buttermilk if available to enhance flow of breast milk. As reported no special diet during pregnancy is also consumed by Saharia tribe (Saxena and Verma, 1993) However no food is tabooed during pregnancy in Kharwar tribe of U.P.( Mishra et al, 2002). Practically bhils kept themselves deprived initially from food during illness to enhance recovery followed by light food. It may be worth mentioning that choice of treatment and food during illness are deeply associated with beliefs and notions and also on nature of illness as related to evil eyes / spirits and other superstitions.

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