



## A Brief Study of Ecology and Health Status of Bhoksha Tribal Group of Uttrakhand

Rashmi Mishra<sup>1</sup>

Ecology is the study of relationship of living thing with their environment. Human ecology is an academic discipline that deals with the relationship between human and their (natural) environment. Human ecology, investigates how human and human societies interact with their environment. It is an interdisciplinary applied field that uses a holistic approach to help people solve problems and enhance human potential within their environment, their clothing, family home and community. Human ecologist promotes the well being of individual's families and communities through education, prevention and empowerment.

Human ecology explores not only the influence of humans on their environment but also the influence of the environment on human behavior and their adaptive strategies as they come to understand those influence better for us. It is a methodology as much as area of research. It is a way of thinking about the world and a context in which we define our question and way to answer those questions.

The word entitled "Human Ecology was first used by a German named 'Ernst Hacked' in 1869. It comes from two Greek words 'Oikas' meaning home and logas meaning understand. The most frequently offered definition is "man in interaction with his total environment" Hackel describe ecology as the domestic side of organic life and the knowledge of the some of the relation of organism to the surrounding outer worlds. In 1927 Charles Eleten wrote "That ecology is the study of animal & plant in relation to their habits and habitats of adjustment of human population to their environment". The study of the environmental relation of particular human groups was introduced by Julian H. Steward is early in 1930. Earlier the environmental studies have been mostly emphasized to the study of plant and animals and other than man. Perhaps this "method of cultural ecology was the most important contribution and proved to be a primary milestone in Human ecology". It was the recognition that environment and culture are not separate spheres.

In U.S.A. human ecology was established as sociological field in the 1920's although geographers were using the term much earlier. Amos H. Hawley published Human ecology- "A Theory of community structure" in 1950. In the 1970's William R Catton and Riley E. Dunlop built on earlier work by Chicago Schools Robert E. Park and Hawley. One main idea of Catton and Dunlop was to go away from the Durkheim paradigm of explaining social facts only with social facts. It is disputed whether human ecology is properly seen as a sub discipline of sociology or ecology. That is orientation rather along the lines of natural science than the social science. The inclusion or exclusion of human ecology in sociology properly

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<sup>1</sup> Rashmi Mishra, Ph.D, Department of Anthropology, University of Lucknow.

varies between countries and schools of sociological thinking. Environment sociology is the field of sociology which compasses the interaction between human and natural environment.

The ecology adaptation of the particular culture depends upon the technology it has for obtaining transforming and distributing energy. This at the base of energy culture and tools machine, techniques and practice relating human existence to the material condition of specific habitats. Through its technology, each culture interacts with its natural habitats to obtain food, fuel and other forms of disposal energy technological inventories and protection against animal predators disease climate extremes and neighbouring human population. Additional technological inventories and practices regulate population size in relationship to space air and other natural resources and dispose of human and industrial wateries.

All techno environmental transaction forms part of ecological pattern on equally basis. However the size and density of population with respect to resources, growth rate, age and sex composition in so far as well as the demographic factors modify and regulate the relationship between culture system and environment and also it is the study of process of adjustment of human population to their environment. Herskovits (1974) opines that "Human ecology" has come to signify the study of this relation.

Julian steward noticed "that similar types of cultures developed under similar environmental but at geographically separate places. Steward attributes these cultures similarities to correspondence in their culture core those aspect of culture might be influenced by the similar ways in which different peoples adapt to similar natural environment."

The cultural ecological research of the tribe of Indian however remained unknown till the publication of Prof. Vidhyarthi's study "The Maler". A study in nature - Man Sprit complex (1963) and there after many young Anthropologist have undertaken the study of the ecological adaptation of the forest and some of the agricultural tribe of central and south India on one hand and the few studies of the process of deseriatification and human adjustment in the arid-zone of Rajasthan.

The Himalayan ecology and its impact on the cultural pattern of the people have also not been studies in detail except for few work among which special mention may be made of Berreman's study of "Ecological Demography and social strategies" in the western Himalaya in French C.N.R.S. (1977)." The distinctive features of Pahari culture and society have been discussed in the studies. In general the tribal ecology is not meeting the subsistence of its entire population. Like V. Subramanyam has explained in his study of 'ecology' in Khond and Gadaba tribes of Visakhapatnam district that these tribes are much more prone for high incidence of malnutrition which leads to high rate of morbidity and mortality. The influence of myth, food taboos and modernization process seems to have added miseries to the tribals which are reflected in the nutritional deficiencies and health disorder among that tribe (Kalla & Joshi ed. 2004:128).

There has been close relationship between ecology and forest, hunting and food gathering, horticulture and pastoral ways of life, generally makes small demands on the natural environment because people tend together or grow only enough food and other materials for the basis need, agricultural societies can heavily burden the environment.

Whenever the term tribe is used, an image of forest dwellers comes in the mind; the forest has maintained the existence of the tribal's since centuries. On the other hand, tribal have protected the forest since long. In this way there has been a symbiotic relation between forest and tribal's, even today. Tribes are found living in and around the forest. They are utilizing the forest for their various kinds of need. As long as forest is under the possession of the tribes. Tribal culture and forest have been inter-dependent and inter- related. The forest

has played significant role in the shaping, the social, economic, and religious, political and cultural system of tribal societies. In their society clan is named after these plants, bird, animal, insects etc. found in the forest and with whom tribal traced mythical relation generally known as totemic object. The clan organization takes place on the basis of totemic relation. So ecology and ecosystem is the backbone of tribal people.

### **Material and Method**

In present paper we focuses on the Bhoksa tribal group of Uttrakhand. Bhoksa mainly schedule tribe of India inhabiting the Himalaya foothill Bhabar and Tarai area of uttrakhand. Bhoksa mainly inhabit the areas of Dehradun, Nainital, Bijnore and Garwal district. The present study is based an empirical study and also use the questionnaire, interview schedule and observation techniques.

### **The Tribe: Bhoksa**

The word tribe refers to "A group of people of the same race and sharing the same language, religion and custom, and often led by a chief (Oxford Advanced Learner's dictionary)". They have strong ethnocentric feeling but do not have social stratification and occupational specialization, and in the social life very strong Kinship bondage. The tribal population forms a significant part or our country population.

India occupies a unique position in the tribal map of the world. The tribal populations groups of India are known to be the autochthonous people of the land. Tribal are often referred to as Adivasi, Vanyajati, Vanvasi, Pahari, Adimjati and Anusuchit Jantati, the later being the constitutional name. The concept of tribe emerged in India with the coming of British; gradually the concept of reservation emerged and through that emerged the idea of schedule tribe in independent India. In India 427 groups have been recognized as scheduled tribes. They form approximately 8% of the total Indian population. These tribal groups inhabit widely varying ecological and geo-climatic conditions (hilly, forest, desert etc) in different concentrations throughout the country with living; it is difficult to reach them. The tribal population in India is generally homogenously distributed, who are culturally firm and have their own strong magico- religious health care system and they always prefer to live within their own life style.

Bhoksas mainly inhabit the area of Dehradun, Nainital, Bijnore and Garwal district of Uttar Pradesh (Now Uttranchal) "[Singh K.S. 1994 : 146]. The region of Uttranchal along with the northern part of Uttar Pradesh, from the Geographical point of view can be divided in to three parts; the Greater Himalaya, the Lower Himalaya and the Sub Himalaya, except the Tarai Bhabar plains belt of Dehradun and Nainital district and some of the river and foot hill plain. Eight hill districts come within the region; these are Almora, Nainital, Pithoragarh, Chomoli, Pauri, Tehari, Uttarkashi and Dehradun. This resion has the chief concentration of the tribal population, as all the five schedule tribes of the state are inhabitants of this region [Bhist B.S. 1999:50]. Bhoksas mainly inhabit the areas of Dehradun, Nainital; Bijnore and Garhwal Districts of Uttar Pradesh" (Singh K.S. 1994 : 146).

### **Area of Study**

The present study is a result of field work mainly undertaking in some villages coming under the Bajpur block Udham Singh Nagar District. U.S. Nagar district have five blocks namely Bajpur, Kashipur, Ramnagar, Gadarpur and the Rudrapur.

Bhoksa are mainly inhabited in these areas Bajpur tehsil was the chief area of a present study. Our field work was carried out mainly in five villages coming under the Bajpur Tehsil. The names of these villages are Rampurah Harshan, Dhuria, Barhani, Khambari & Baria Daulat.

The habitat of Bhoksa, Tharu, Khasa, Bhotiya and Raji tribes is the board belt of Tarai and Bhabar. This terrine is composed mainly of the debris washed away by streams from, the southern side of the Siwalik Hills. Due to the change of gradient at Bhabar on the upper end of Tarai, a large deposition of boulders and Shingles as the result of the fast flowing stream in Bhabar has taken place, while the finer material i.e. sand and clay is shifted even further thus creating the Tarai region?

### **Natural Vegetation**

The following type of vegetation is found in this belt: Savannah type vegetation in the marshy tarai zone lying below 257.87 m. Sub-tropical deciduous forest extending along the southern foothill zone of Bhabar and Tarai as well as long the Dun areas and over the outer slopes of the Shivalik range up to 899m elevation. In this type of vegetation the main species are sal (shore & robust) Khair (*Acacia catechu*), Shisham (*Dalbergia Sisoo*), Sain (*Terminia, Tomentosa*), Haldu (*Adina cordifolia*) Teak and *Eucalyptus*. This type of vegetation is also found in some parts of the valleys of the Sarju, Kali Ramganga, Goli and Kosi rivers. Sub-tropical pine forests occur in extensive patches above 1017.73m elevation where edaphically and climatic conditions are suitable.

Except Kosi, gola and Kali Rivers, other rivers which flow through Bhabar and tarai originate in the Siwalik ranges. The rivers that originate in the Siwalik range are phika, Dabka, Bhakara, Nandhaur, Dhela, Baur and Kamin. They play an important role in irrigating the waterless tract of Bhabhar and making it a rich agricultural land. There rivers which pass through Bhabar, finally meander in to tarai. Apart from these there are several streams in the Tarai such as Soniha, honia Deoha, Bhagul, Bhokra, Kamin, and Kailas.

### **Ecological Effects on Social Life of Bhoksa**

Ecological conditions determine the availability of foods. Differences exist in climate, soil and relative abundance of food material (meat or vegetable). Dietary habits are closely associated with ecological and cultural behavior of human group. Culture influences on food preferences, beliefs about the properties of food and taboos and the social role of food in the family and community can all have important effects on food needs and provision (S.J. At Kinson 1992). The influence of technology on food habits is also very strong. For instance or absence of efficient means for obtaining transporting processing storing and preparing food has a significant effect upon nutrient content and consequently upon nutritional problem create many types of disease. Another set of nutritional problem develop from unsanitary food supplies and water contamination.

"The tribal population of our country is mostly distributed in the forest zone of Eastern Ghats, Western Ghats and central northern eastern and Himalayan Mountains. The forest dwelling population in India is estimated around 48 million. Through ages they have established symbiotic relationship with forest and adopted to such ecosystem" (Tiwari and Sharma 1989).

The present study Ecological effects on Bhoksa tribe, this study was carried out in Bajpur area and five villages are selected purely on the basis of purposive sampling conventional anthropological methods were used to collect the data and also secondary data were collected from Jila Jangarna Karyalaya, Jila Samaj Kalyan Adhikari of Bajpur and also Khand Siksha Adhikari of Bajpur.

### **Ecological and Cultural Background**

The Bhabar and Tarai area of the dense forested. Plains shaping gently towards the South East with an average breadth of 18 meters north to south. In the Tarai area the soil is moist alluvial deposits without any sign of rock formation of Bhabar. The similar soil is

found in Bajpur and Naintal Distric. In the Bhabar and Tarai area of Bajpur district, the temperature is relatively high. The Tarai and Bhabar areas are notorious for their unhealthy climate. It has been popularly known as penal settlement because of its material climate which is characterized by excessive heat and humidity, particularly during the rainy season.

The study reveals that the 'ecological effects' on the all social and economic life of Bhoksas, their habits and much more prone for high incidence for nutrition which leads high rate of mortality and morbidity. In general the tribal ecology is not meeting to subsistence of its entire population. The influence of myth food, taboos and modernization process seems to added miseries to the tribal which are reflected in the demographical aspect (mortality& morbidity)

In area of Bhabar is very reproductive and fertilized so entire in the district is covered with forests growth of numerous trees and animals. There are many types of trees are found in this area like as sal, Kukut, Ayur ban, bamaak chir, Khair, Oak, Deodar etc. In this area the long jump forest consisting of valuable trees like Babool, Sardum, Kher, Shesham etc. Forest happens to be main source of getting food, vegetables, or medicinal plants or animals. naturally the different forest acts restricting the use and exploitation in Bhoksas.

In this area the long jump forest consisting of valuable trees like Babool, Sardum, Kheer, Sheesham etc. And the cash crops like metha (pipermint) are found in this area. Bhoksas are mainly cultivate this crop. Both rabi and Kharif crop are cultivated by the Bhoksas. The main crops are found in this area are wheat, Barely, lentin and onion are the important rabi crops Rice maize Jhangora, potato, ginger are the main Kharif crops. Some pulses like Arhar, gram, Urad peanut etc are also produced in this area. In the forest a number of wild animals are also seen in this area like as sambhar Banking deers, wild pig, for, Neelgai, poccupine rabbit, chetal etc. In their free time Bhoksas are very interested in hunting.

The economy of Bhoksas are much more affected by their environment. The Bhoksa economy has been well adjusted to opportunities and difficulties of the environment of special significant is their economic calendar which bears testimony to their ingenuity in exploiting seasonal changes. Agriculture is the characteristic feature of their economy. But the slack season which rendor most of the Indian peasantry "Under employed" keep the Bhoksa "full employed" in other subsidiary occupations. For example during April & May when they are free from harvesting their Rabi corps an acknowledgement fact for Bhoksas they take to bread up the woollen warm similarly hunting and something other subsidiary pursuits like laboring, basket making and house repairing activities are beautifully dovetailed with the agricultural off season.

'Another remarkable feature of their economy is division of labor which offers sample opportunities for all the members of the family to contribute their mite to the domestic properties'. The division of labor between sex is based on limiting customs and conventions certain occupations involving hard physical labor i.e. spading plough, waking the crops, animals husbandry repairing the houses etc are by men, while weeding, winnowing husking making of pots and plastering of wall etc. are allowed to women. A current list includes harvesting sowing gardening poultry forming etc. which are assigned to their joint performance of both sexes. Children are their economic assets for they share light responsibilities like tending the cattle etc.

So their chief economy is agriculture cattle bearing, poultry forming, physical labor, craft, fishing hunting and animal husbandry. More over Bhoksa live in harmony and very much attached to their religious political institutions and inter wind with the environment which they inhabit. As regard their worship and beliefs they also worship Hindu Gods apart from their own. They influenced by Hinduism. They believe superstition and magic. The pradhan of the village is the religious leader and also they have a village council of informal

political body which deals the cases like divorce family and property dispute. And they also believe in their "which doctor" is called 'Sayana' or 'Bharara' who knows the process of Neutralizing the influence of evil spirit on the patients.

Bhoksas are not aware to environment disease and infections. The tarai area of Bajpur is very prone for the malaria and also there is found many watery disease small pox, malaria, cholera, pneumonia disease are more frequently spread among Bhoksas. Bhoksas are not aware for their health system. They do not like to go primary Health centre or any doctor's clinic. They believe only this which doctor" Bharana". They generally rely upon their own traditional system or medicines herbs leaves etc.

### **Role of Folk Medicine in the Life of Bhoksa**

The term ethno medicine or folk medicine is used to refer to those beliefs are practices relating to disease which are the products of indigenous cultural development and are not explicitly derived from the conceptual framework of modern medicine. It explores environmental biological and socio cultural factors as they impinge upon disease pattern and people respond do it.

Bhoksas generally rely upon their own traditional system or medicines. They have faith in "Sayana" who is their local doctor or medicine man. In most of the disease recognized to have occurred due to natural causes specific medicine (herbs) are used by them. Some of these are really quite effective. The 'Sayana' have a extensive knowledge of herbs which they have gained by bitter and successful experiences. Their faith in herbal medicine was probably strengthen with recoveries from illness and other disease but many times in succession.

Bhoksas are in general they are not very clear in their ideas about health, disease and treatment so they depends only their medicine man. They take all health advice by them and take herbal medicine. Folk medicines who used by Bhoksas their names and use are given below:

1. GheGhwar (Alovera) – They given named as "Ghrat Kumari". They used this herbs in stomach ache and for cleaning the stomach. They chew this leaves daily in morning time
2. Pathar Chatta (Ajuba) – They used this berbal medicine for curing "stones".
3. Sadabahar – Bhoksas used the leaves and flower of sadabahar for curing "Sugar and diabilities. The people who are affected the disease they can take this herbs paste daily in morning and night tim.
4. Arjuna– The stem of Arjuna is used in high blood pressure and heart disease. The herb is very effective for control blood pressure. Bhoksas cutting the Arjuna stem and boiled it. After boiling properly when some water left in a bowl they take it after cooling. They give this herbs affected patient for 11 eleven days in morning regularly.
5. Ghonga– Ghonga is an insect they used for this asthma or breathing problems.
6. Turtle– The use of turtles (Kachaua) head for curing cancer disease.
7. Sarp Gandha– Bhoksa used the stem of 'Sarpa Gandha' for high fever. They make paste for this stem and give the patients in morning and evening time for three days.
8. Ratkal– They used this herbs for pimples and wounds.
9. Gadh Rod– They make paste the stem of this herbs and drink it for gas and constipation and stomach ache.
10. Singiri– For teeth pain they burn the grass of singri and they make paste for this ash and

given the patients.

In summaries we can say that the Bhoksas give first preference to the traditional health care system. Moreover the modern trend or health care practices could not be reached adequately among them. So they Depended their won health care system.

### **Concept of Health and Hygiene**

The area of Tarai in general are marked by poor coverage in water disease high concentration of infection and Bhoksa are not aware from health education and cultural practices adversely affecting their health. "Sayana" or "medicine man" the wise one among Bhoksas who operate them. As medical facilities are still inadequate and Bhoksa have periodic visitation of epidemics like cholera, chicken pox etc. Sayam acqure their skill from their parents. He does not tell the name of herbs or mantras to other except their son. Through interest and observation Bhoksa may learn about the different plants that grow in the vicinity or in the forest of tarai area. He also note the effects of different food and herbs on patients; in this way they build reputation as home cures for common ailment for example cold fever, headache bodyache, snake bite etc.

Among the Bhoksas, disease or illness are attributed to more than one cause. They believe that cause for illness is of two categories i.e. (1) supernatural (2) physical. The supernatural category of illness is believed to be caused by the intervention of a supernatural (a deity or a God) or a non human being (a Ghost ancestor or evil, spirits) and a human being with a kind of supernatural power (a witch or sources or sayana or Bharara) Kodh (Leprosy) measles and chicken pox are considered due to the wroth of god or goddess. The physical category the illness is explained as being caused because of the disobedience of natural law. The treatment for the disease under this category includes certain medica of flora fauna and minerals. Tapedic (Tuberculosis), sukha rog, dama are the physical type of disease since government and non government medical persons have been trying to contact them for last two decades the traditional concept of disease are giving to be modified in the light of socio-economic level.

Since Bhoksas believe in supernatural and magical power a number of disease in their daily life. They are believed to be caused due to these mysterious forces. Bhoksas are not aware that their surroundings and dietary habits may produce disease. Allopathic doctors of P.H.C. are consulted only when either the cause of disease is not understood or there is vague felling of not being fit. Overall integrated development of socio cultural economic and education, each of these aspect has a deep influences all these aspects of any tribal group. It is recognized that health problems of the tribals are not the exclusive domain of medical sciences; Socio cultural tradition does play an important role of health and treatment. The widespread poverty illiteracy, malnutrition, absence of safe drinking water and sanitary living condition, poor maternal and child health services are affected any tribal group. Bhoksas are not a very hard work people. Their literacy level is not a very good; they are not aware to environmental disease, watries disease and other infection etc. In Bhoksas both men and women smoke "Bidi" and chew tobacco. Smoking and Alcoholism is very much prevalent among them even the Bhoksa women also taking the intoxicating drink. Now a days steps are being taken by the government to eradicate the disease like Malaria, Small pox, cholera, Pnemonia which are more prevalent among them. The government appoints health workers for Bhoksas and open in very village primary health centers for them. The Government has done the needful by placing a Primary health Centre and Aganbadi Kendra. Where the health workers and mid-wives by their best of educate men and women's like on the basic concepts of hygiene, cleanliness, proper diet consisting of nutritional food.

But Bhoksas are very narrow minded people they don't believe on doctors or allopathic medicines. They rely upon their own traditional stem of medicines, herbs roots, fruits leave

vegetables are their very day medicine despite medical practices. They faith in 'mantras'.But today they are gradually learning to save their lives from disease, with the help of cooperation of local doctors and health centers.

The health and medical problems of Bhoksa cannot be overcome merely by providing all necessary facilities be it supply of medicine and there is a necessity to establish more primary health centres and hospitals among these tribal people. In order to win over the crisis of tribal health and nutritional deficiencies, the efforts is to be too prompt while on one side the facilities and important on the other necessary awareness raising confidence building and raising trust level is equally significant while extending the medical facilities. The encouragement to their folk medicine system can serve as a proactive approach to help the Bhoksas to built up a strong base for warding off health disasters and keep disease at bay especially in a situation when modern medicine is reaching tribal world slowly but consistently.

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