

## Ecological System and Economic Life Among the Parajas of Orissa

Soumendra Mohan Patnaik

Department of Anthropology, University of Delhi, Delhi 110 007, India

**KEY WORDS** Ecology, Economy, Agriculture, Paraja, Orissa, Material Culture.

**ABSTRACT:** In the last decade, the ecological approaches to human society have become very popular mainly because of the effects of environmental degradation. Ecological crises have affected all societies but the small scale societies have experienced the worst consequences of the degradation of their environment. In this article the relationship between eco-system and economic life of the Parajas of Koraput District of Orissa has been examined. After giving a succinct account of the Parajas, their economic life in relation with the ecological system has been described. Interaction between technology, environment and economy has been worked out.

Culture in Malinowski's sense is a 'vast apparatus' or "instrument" which helps the individuals' adaptability to their environment. A student of society and culture can never afford to ignore the environment, its constraints and resources, for it is the first parameter to be encountered during the field work. Though no disagreement exists about the assertion in *Notes and Queries* (1893, 1951 : 35) that "no sociological study of a community could be undertaken without an understanding of the natural environment within which it exists and from which it draws its subsistence", unfortunately most of the ethnographies of Indian tribes and castes relegate environment to a 'secondary' place. However, there are some notable exceptions (for example Vidyarthi, 1963; Srivastava, 1979; Bhasin, 1988, 1989, 1990), but research from ecological perspectives has yet to take off. In most studies the habitat and environment the people live in was treated perfunctorily, often constituting the first chapter or its section, of a monograph (Ellen, 1979). Thus the ongoing relation between environment and social life, as it was modified in long-term feedback equations, was largely unexplored; the ecological paradigms guiding research on smallscale societies had not fully emerged.

But the anthropological approach has started showing a change in its perspectives. One of the reasons is the mass destruction the industrial

system has unleashed for the tribals—the hunters and food-gatherers, pastoralists and nomads, agriculturists and petty-commodity producers. It is fully accepted that once the habitat of the people is irreparably plundered, the signs of their recovery from such ecological holocaust become remote (Burnham and Ellen, 1979).

Lest such eco-destructions find their way in human society, especially of small-scale producers, we need to preserve their environment, saving it from any of the ecological threats. Thus, it becomes imperative that the way in which small societies interact with their respective environments extracting resources for an optimal survival, needs to be internally as well as externally studied (also see Mauss, 1979). The present attempt is on the interaction between ecological factors and economic life as it obtains among the Parajas of Orissa.

Anthropologists subscribing to ecological approach have often tilted either to 'environmental determinism', also called 'geographical fatalism', or 'possibilism', also termed as 'multi-factorial perspective' (Srivastava, 1990). Presently no ethnographer would give credence to the theses that environment determines social organisation and cultural designs, although he may be tempted to do in the course of field work and later analysis. The general consensus is that of the many causes that shape a culture and social relations between people, environment is an

important variable, and ignoring or side-tracking it may yield an incomplete picture (Hardesty, 1977).

Once we have settled down to follow the premisses of a multifactoral analysis, in which environment is an indispensable causal force, the other issue to be sorted out is about the primacy of institution most intimately related to environment. Steward (1955, 1968) was one of the first to state that the most proximate to the environment is the economic life of the people. It is through a set of intertwined techniques and material cultural implements that the people convert their environmental resources into usable food and commodities.

Here, the perspectives that understands the total relation between environment, economy, technology and society/culture is taken. Based on a fieldwork as well as secondary material, the relation between the eco-system and economic life of the Parajas has been constructed. Role of environmental factors in regulating the economic activities of the people has been delineated. Finally, the relation between economy and other means of the Paraja social life is touched upon.

### THE PARAJAS AND THEIR NATURAL ENVIRONMENT

The Parajas mainly inhabit Koraput and Kalahandi districts of Orissa, Vishakhapatnam district of Andhra Pradesh and Bastar district of Madhya Pradesh. In Orissa, only Koraput has more than eighty-five per cent of the total Paraja population. Therefore, Koraput is considered as the homeland of the Parajas.

The Paraja is not a compact tribe, rather a conglomerate of several endogamous sections. In Koraput, three major sections are found: (a) Bodo or Sodia Paraja, (b) Sano or Jhadia Paraja, and (c) Parengi Paraja. They speak Parji language which is of Dravidian origin. Their's is a patrilineal society with a number of exogamous totemistic clans (*bauns*). Each *bauns* is further divided into various lineages (*kuda*). Parajas have preferential rules of marriage: both matrilineal and patrilineal cross-cousin marriage are preferred. They believe in the existence of supernat-

ural power which influences their day to day activities. They worship dead ancestors (*dumba*). Other gods/goddesses of importance are *ghar devta* (family deity), *hundi* (village deity), *jan devta* (moon god), *jakar devta* (earth goddess), and *dangar devta* (hill god). The Parajas are mainly agriculturist: both plain and shifting type. Most of the land owned by them are of unirrigated upland type (For a detailed account see Patnaik, 1989).

As the bulk of Paraja population live in Koraput district, we shall concentrate on this district while discussing their natural environment. This will be discussed under three heads—

1. Climate and rain-fall, 2. Hill and river system, and 3. Forest and soil

#### Climate and Rainfall

The climate of the Koraput district is dry and hot during summer with a maximum temperature of 46.6°C in May and too cold in winter with a minimum temperature of 3°C in December. The normal rainfall is 230.6 mm. During monsoon, the weather is cool, pleasant and relative humidity is high. Storms and depressions pass across the district during the monsoon season. However variations in altitude necessarily affect rainfall and temperature, and consequently a variety of climatic conditions is milder than in other districts of Orissa. The 12 metres plateau of Koraput is the coolest part of Orissa at all seasons of the year. The average relative humidity in Koraput district varies from 60 per cent in March to 92 per cent in August and September.

#### Hill and River System

Koraput district lies on a section of the Eastern Ghats and consists of five natural divisions having mean elevations of 915, 760, 610, 305 and 150 metres above the mean sea-level. A number of mountain ranges and isolated hills rise out of these tablelands. The whole tract can be divided into the following four district divisions each of which can be separated by natural barriers as their respective limits:

(i) *Raygada and Gunupur Sub-divisions*: The tehsils of Bissam Cuttack, Gunpur, Raygada and Kashipur form the first geographic unit. The whole of the region consists of two fertile valleys of the Nagavali and the Vamsadhara, between rigged mountain ranges (ii) *The 915 m plateau*: it extends from Kashipur tehsil to the border of the East Godavari district in Andhra Pradesh. It is drained westward by the rivers Indravati, Kolab and south ward by the Machhkund towards the Godavari valley. (iii) *The 610 m plateau*: it covers almost the entire extent of Nowrangpur subdivision. It extends far to the west into Bastar and in the north into the district of Raipur. In the south it falls away by steep Ghats into the Malkangiri tehsil. (iv) *The Malkangiri subdivision*: It forms the fourth natural division.

There are many outstanding peaks in Koraput, the most notable ones being Turia Monda 1598 m, Polamakani parbat 1585 m, Meyamali parbat 1500 m, Karmapadi Konda 1490 m etc.

In Koraput district there are many rivers and perennial streams. There are five large and important rivers: Vamsadhara, Nagavali, Machhkund, Indravati and Kolab. One of the villages, namely Bagara, in which the present study is conducted is situated on the bank of river Kolab. The Kolab raises near Sinkaram hill on 915 m plateau, flows north-west in a winding bed, passing eight kilometres to the south of Koraput and falls down to the 610 m plateau not far south of Jeypore.

#### Forest and Soil

Most of the area of Koraput district are under forest. Of the total area of 25690 sq km of the district, 14300 sq km. comes under forest. The forests of Koraput are of Northern tropical semi-evergreen type. In the forest there are many plants of great economic importance. Teak and Sal are found abundantly. Other predominant forest products are bamboo and particular variety of coarse grass rising up to a height of 300 cm. In the more densely populated areas, as in the hills to the south of Koraput, repeated shifting cultivation over a long period of years has reduced the forest to an open scrub type or barren soil. The exist-

ing forest have all been under shifting cultivation. In Koraput district shifting cultivation is known as *Podu* or *Dongar* cultivation. The Parajas call it *Kodki*. Shifting cultivation is still the most serious problem of forest administration.

In Koraput red soil with small patches of laterite soil is found in the northeast and black cotton soil in the southeast. Rocks contain large deposit of Iron, Manganese, Mica and Graphite. Limestone deposits are also found abundantly.

#### THE ECONOMIC LIFE OF THE PARAJAS

The Parajas have subsistence economy which revolves around agricultural land, forest resources and wage labour. However agriculture is the major economic activity. The principal crop of the Parajas is paddy. They are totally dependent on monsoon for cultivation. The unproductive nature of the soil, irregularities in rainfall and low level of technology give very little output and the Parajas are forced to live in difficult economic situation. In other words, they live in a state of subsistence economy with very little source of supplementary income.

#### Agricultural Land

The Paraja word *Jami* refers to land, especially to agricultural land. It is the most valuable immovable property among them. They exercise rights of usufruct and ownership over the land they possess. These rights are transmitted from one individual to another and from one generation to the next. The frame of reference in terms of which this transmission takes place is that of kinship. Kinship forms the basis of ownership and inheritance of land. A child becomes the potential heir of land by virtue of his birth in that family. Though land can also be acquired by purchase, it is a rare phenomenon and in most cases its ownership is obtained due to one's position in the kinship system. The members of the domestic group which usually consists of two to three households linked by patrilineal descent, own the land and possess it jointly.

Before discussing the pattern of land holding,

process of cultivation, and the division of labour among the family members we shall discuss the land use of classification of one Paraja village, Bagara.

### Land Use Pattern

The land record of the village reveals that the total land of the village is 161 ha (1 acre = 0.4 ha). According to the official land records the total land of the village is divided into seven categories such as private land or bungalow land, *dangara* land or hill land, *Abada Jogya Anabadi* (unclaimed land suitable for habitation), *Abada Ajogya Anabadi* (unclaimed land suitable for habitation i.e. mainly forest), *Paramboka* (land which are essential for the villagers like school ground, village road etc.) and *Rakshita* or reserved land. The amount of these categories of land is shown in table 1.

Table 1: Land use pattern in village Bagara

S.No.	Land categories	Land (in Hectares)
1.	Private Land (Bungalow)	0.5
2.	Paddy Land	9.0
3.	Dangara Land	40.6
4.	Abada Jogya Anabadi	4.3
5.	Abada Ajogya Anabadi	69.1
6.	Paramboka	18.7
7.	Rakshita	18.8
Total Land		161.0

As shown in the table 1 the *Abada Ajogya Anabadi* land constitutes the largest portion of the total area of the village *Dangara* land occupies the next largest portion of the village. On *dangara* (or hill) land, the Parajas practice shifting cultivation locally known as *kodki*. The village is surrounded by *dangars* or hills. The river Kolab flows at the south of the village Bagara. Adjacent to the river, towards the village, a large grazing field is situated. The Paraja boys bring the cattle of the village to the ground in the morning and take back in the evening. Beside the grazing field, a village path runs from the river bank

to the village Bagara. This village path runs further and joins the Dahadapadar square. In between the grazing field and the agricultural plots which surround the village, there is a hill locally known as *Dangar*. Most of the agricultural fields are confined to the south, east and northern part of the village whereas several hills with dense forest are at the west.

### Types of Agricultural Land

According to the official records the agricultural land of the village is divided into three types, such as (1) Paddy land (2) Dry land and (3) *Dangar* land.

The *paddy* land is irrigated. As it is hill, irrigation is usually done by diverting the water of river Kolab wherever possible or by diverting the water of the hill streams into the agricultural fields. However, such irrigation facilities are still rare in this area and most of the lands are hilly lands classified as *Dangara* land. In between the *Paddy* and *Dangara* land there is another type of land known as dry land. Dry land is nothing but unirrigated plain lands.

The natives (Parajas) conception of various types of land is almost similar to the above classification. However their terminology of various types of land differ from the official terms. Table 2 indicates the official classification of land types and their Paraja equivalents.

Table 2: Classification of land

S.No.	Types of Land		Nature of land
	As mentioned in the official record	As stated by Parajas themselves	
1.	Paddy	Beda	Irrigated plain land
2.	Dry	Bata	Unirrigated plain land
3.	Dangara	Dangar	Unirrigated hilly (stony) land

### System of Land Tenure

Among Parajas the land is cultivated by the

owner himself, however, giving land to others on lease is not completely absent. In some cases a Paraja gives his own land to another person to cultivate and in return he gets some per cent of the total product. But this is the case when the owner is too old to cultivate and has no sons or when he is not staying in the village. The three types of land tenure systems prevalent among Parajas are discussed below.

In the first type of land tenure the owner gets fifty per cent of the total agricultural products. In other words the total product is divided equally between the owner and tenant. It should be mentioned here that while giving land to others for share cropping a person from outside the group is always preferred.

In the second type of land tenure the total product is divided between the owner and tenant at the ratio of 2:3. The owner gets two-fifths of the total product and the tenant three-fifths. However in both the cases the shares of the owner and tenant is not always fixed. It depends upon the type of land and the nature of relationship between the tenant and the owner. Whether the owner will supply some labour or not is also dependent upon the nature of personal relationship between owner and tenant. However no such case of land tenure has been reported from the villages studied.

The third type of land tenure is not a system of land tenure in the strict sense of the term. In this case the land is kept as security for the recovery of loan. The owner of the land surrenders all his rights over a land to a person from whom he borrows some money. In this case the owner does not get his share which was deducted for the sake of interest. In other words the owner does not pay the interest or *kalantar* of the loan and also does not get his share from his land. In this case the owner becomes a non-entity and there is no owner-tenant relationship. The tenant virtually becomes the owner of the land as long as the loan is not recovered. But however there is a custom among Paraja by which a smooth owner-tenant relationship could be maintained even in this type of land tenure. It is customary on the part of the tenant to give a very nominal amount of the

annual product to the owner thus recognising his ownership over the land. As stated earlier, the owner usually cultivates his own land. Giving land for share cropping in the above mentioned three types is very rare. The owner usually gives land for share cropping out of compulsion.

#### Pattern of Land Holding

Holding means "the land over which the individual or a family possesses permanent hereditary rights in any capacity, as owner, occupancy tenant or hereditary tenant etc. the common link being the possession of the right to cultivate, the inheritance of which is governed by law or custom having the force of law" (Bhandari, 1968: 26). In discussing the pattern of land holding in the village Bagara the word "holding" has been used in the above sense.

The social unit of land-holding is neither a single person nor a nuclear family but rather a group or number of nuclear families tied by patrilineal descent. This group which owns land is known as *Kotar*. In this context it is necessary to relate some of the structural features of Paraja society with that of landholding. The son after his marriage separates from his family of orientation and establishes a new household near his father's. But the land remains undivided so far as the father is alive. Thus if a person has four married sons, each one with his separate house and hearth, then all will share the common land, all of them will labour in the agricultural field and at last the product will be divided equally among the father and four sons. After the death of the father the land is equally divided among the sons. A careful examination of the land holding pattern in the Paraja village indicates that there are 16 holdings with a total of 28 households. After the death of the father the land is equally divided among the sons. All the members of the household contribute their labour in the cultivation process and hired labour is very rare among them.

#### Process of Cultivation and Division of Labour

The Parajas cultivate a variety of crops such

as Paddy (*dhan*), millet, ragi (*mandia*) and *suan*. The process of paddy cultivation starts in the month of *Asad* i.e., in June-July. Then in the next month i.e. in the month of *Bondapans* (July-August), they start transplantation of paddy seedlings in the *beda* land. Transplantation is usually done by the female folk. *Beda* land is mainly meant for paddy cultivation as irrigation facility is available in this type of land. They do not use any sort of fertilizer nor even organic manure in the paddy field. In the month of *Pandu* (November-December) harvesting of paddy is done. Before bringing the crop to the house, they perform certain rituals at their farm, where the paddy is dried up under the sunshine for a few days. Then the paddy is separated from the plants either by striking it against a wooden plate or by making the bullocks walk over the paddy plants. Then the paddy is divided among the concerned households and taken to the respective houses.

Millet is also sown in the month of *Asad* and harvesting is done in the month of *Pandu*. But they sow *suan* in the month of *Landi* (May-June) and harvesting is done in the month of *Pandu*. They use organic manure during the cultivation of millet and *suan*. The Parajas also practise shifting cultivation which is locally known as *Kodki*. They cultivate millet, *suan*, and *alsi* in shifting cultivation but not paddy. The associated agricultural and other works of Parajas are listed in Table 3.

The land is limited and few but there is surplus of labour. So the labour force required for the farming is met within the family. All the family members, males and females work in the field however there is a difference in the nature of their work. The ploughing is done by the males only. The sowing of seeds is done by both males and females. The transplantation of the seedlings is done by the females. The weeding is done by the children and female folk. Harvesting is done by the males as well as by females. After the harvest is over, the male member of the household takes his share from the farm by *Kaudi*, a local measure. They do not hire labour because the labour force of the owners' family members is sufficient for the cultivation process.

## THE FOREST

The natural environment offers Parajas a rich variety of uncultivated and undomesticated resources in form of forest and other vegetations, raw materials and animals. The forest is essential to their economy. As shown in Table 4, a major part of the land area of Bagara village comes under the category of *Abada Ajogya Anabadi* which includes mostly forest land. At times when the Paraja crops suffer from draught or floods, they depend mostly upon various forms of forest products. Thus the forests have a significant function in the economic life of the Parajas. They provide food and drink, raw materials for household and agricultural implements and game for food and ritual.

The forest on the hill slopes provide fruits and juices for the Paraja. The fruit trees include *Amba* (Mango - *Mangifera indica*), *Jama* (Guava), *Panas* (Jack fruit - *Artocarpus integrifolia*), *Mahul* (*Basia latifolia*), *Tintili* (*Tamarindus indica*), *Khajara* (date-palm - *Phoenix dactylifera*) etc. Some times these are sold in the weekly market (*haat*) at Jeypore, Kolab and Koraput. Forests provide food not only for the Paraja but also for their livestock. Children take care of the cattle in the forest. They keep watch over the herds while fodder, water and shelter are supplied by the forest.

Forests also provide the Parajas with raw materials for constructing houses or *basa* and for making agricultural and household objects. The bamboo (*Dendro calamus*), *sal* (*Shorea robusta*) and *neema* (*Azadirachta indica*) are used in house construction, that is for making the frames of doors, wall frames and sloping roofs of houses. The roofs are thatched with *piri* (straw) supported by a bamboo frame. The wood of *sal* tree is very strong and therefore used for the main pillar on which the structure of the house rests. Wooden or bamboo cylinders are used as handles for agricultural implements such as *da* (sickle), *kuradi* (axe), *nagur* (plough) and, *dhenki* (husking implements for pounding paddy etc.). *Sal* wood is used for the manufacture of *dhenki* and *nagur*.

Table 3: Associated agricultural and other works

<i>Paus</i> (December-January)
No cultivation work. start preparing <i>Beds</i> for cultivation of <i>Paddy</i> . Collection of <i>Piri, balni</i> (grass for brooms), wood, <i>Siadi</i> (edible seeds) drying items on roof tops for storage. More drinking session as <i>Salap</i> (liquor) is plenty.
<i>Magh</i> (January-February)
Preparation for shifting cultivation by cutting trees and bushes on hill slopes, pulses made ready for sowing, <i>beda</i> preparation for paddy continues, building houses, <del>building</del> and storing of <i>Ragi, paddy</i> sowing for seedlings, collection of Wood— <i>Piri-siadi Balni Salap</i> is lesser, more time as rain.
<i>Phagun</i> (February-March)
<i>Beda</i> prepared for transplantation of paddy seedlings, ploughing and transplantation begins, houses are built, <i>Ragi</i> cleared and stored.
<i>Chait</i> (March-April)
Hill slopes ready for shifting cultivation, <del>for</del> <i>ragi</i> -millets and cereals, hunting expedition by men, singing and dancing sessions by men and women (especially by <i>lalar</i> ), Mangoes eaten for the first time.
<i>Baisakh</i> (April-May)
Millet- <i>ragi</i> sown after first shower, collection of wood, house building work almost complete.
<i>Landi</i> (May-June)
Ploughing completed, sowing done after land becomes soft from rains.
<i>Asad</i> (June-July)
Marriage season starts, weeding begins in the field, Merry Making.
<i>Bondapon</i> (July-August)
Marriage season continues weeding continues, least pressure of agricultural work.
<i>Usa</i> (August-September)
Millets and <i>ragi</i> ready; bamboo shoots collected ( <i>Kadi phula</i> ), weeding continues.
<i>Dussera</i> (September-October)
More drinking as <i>Salap</i> is plentiful, millets harvested, guarding of crop in the field.
<i>Dial</i> (October-November)
Harvesting of crops: <i>ragi</i> , millets;
<i>Pand</i> (November-December)
<i>Paddy</i> harvest and reaping millets completed.

Forest also provides unlimited resources in the form of wild birds and game. These animals are hunted either individually or in an organized hunting expedition (as during *chaita parab*) and are used for sacrificial rituals and as food. The forest also provide various medicinal herbs which are used for curing different types of fevers, diseases and injuries. The domestic fuel is collected from the forests only. Some times they sell it in the nearby market.

### WAGE LABOUR

Besides land and forest the Parajas also earn their livelihood by working as wage labourer. They work for road, forest and quarry contractors. They work for the whole day from 9 O'clock in the morning to 5 O'clock in the evening. The Paraja males get Rs.10/- per day and the females Rs.8/- per day as their wage. Usually the Parajas go for wage labour when there are no agricul-

tural activities. The Upper Kolab Multipurpose Hydroelectric Project provides ample employment opportunities for the Paraja men and women to work there as unskilled labourer. It is also found during the present study that the Parajas spend almost a quarter of their daily earnings in drinking liquor. In the remaining earnings they bring the required ration for their daily consumption from the market before coming back to their *basa* in the evening. All members of the Paraja family return to their *basa* in the evening from their respective work sites.

### CONCLUDING OBSERVATIONS

For exploiting natural resources, the Paraja communities devise their own technological apparatus. The Parajas have simple technology in the sense that its principles can be easily understood and disseminated. They have a traditional plough made up of wood and iron which is pulled by bullocks. Trees are cut and the fuel is collected by iron axes. For cutting the crops a sickle made up of wood and iron is used while a scythe made up of the same material is kept for trimming the bushes. A long sharp knife is for ritual sacrifices. The Parajas have traditional pounding pestles and winnowing fans for separating husk from paddy. Their houses require repair every year because of the damage incurred during different seasons. In some their technology serves as an optimum instrument for exploiting their environmental resources.

Environmental and climatic changes regulate the economic and social activities of the people. For example it is in the months of June to September that they have their marriage season. It is also the agricultural season. Communal hunting or *Chait Parab* is organised in the month of *Chait* (March-April). It is the period of merry making. People sing and dance and their hill slopes are ready for shifting cultivation. It is in this season that the mangoes are eaten for the first time.

The values generated by economic orientation and the values generated by aesthetic and expressive institutions are opposed and they are closely entwined with the ecological cycle. The people

make a distinction between work and past time, and when the pressure of agricultural work is less, communal functions and social activities like marriage etc. take place.

In small-scale societies, the influence of environment in shaping the social life can be evinced at every level. Such relationships need to be understood for undertaking any development work on the people.

### REFERENCES

- Bandari, J.S.: Land and social structure. *East. Anthropol.*, 21: 1 (1968).
- Bhasin, V.: *Himalayan Ecology, Transhumance and Social Organization. Gaddis of Himanchal Pradesh*. Kamla-Raj Enterprises, Delhi (1988).
- Bhasin, V.: *Ecology, Culture and Change: Tribals of Sikkim Himalayas*. Inter-India Publications, Delhi (1989).
- Bhasin, V.: *Habitat, Habitation and Health in the Himalayas*. Kamla-Raj Enterprises, Delhi (1990).
- Burnham, P.C. and Ellen, R.F. (Eds.): *Social and Ecological Systems*. Academic Press, London (1979).
- District Census Handbook: *Koraput District, Orissa Vol. I*, Government of Orissa Press, Cuttack (1961).
- Ellen, R.F.: Introduction: Anthropology, the Environment and Ecological Systems. In: *Social and Ecological Systems*. P.C. Burnham and R.F. Ellen (Eds.). Academic Press, London (1979).
- Hardesty, D.L.: *Ecological Anthropology*. John Wiley, New York (1977).
- Massis, M.: *Seasonal Variations of the Eskimo: A Study in Social Morphology*. Translated, with a Forward, by James J. Fox. Routledge and Kegan Paul, London (1979).
- Notes and Queries on Anthropology Routledge and Kegan Paul, London, 6th Edition (1893, 1951).
- Patnaik, S.M.: The Parajas: Historical and Contemporary Scene. In: *Changing Perspectives of Anthropology in India*. S.C. Tiwari (Ed.). Today and Tomorrow's Printers and Publishers, New Delhi (1989).
- Srivastava, R.: *Developmental Dimension of Domestic Groups in India: An Anthropological Analysis of Domestic Groups, Demography and Economy of a Tribe in Central India*. Books Today, New Delhi (1979).
- Srivastava, Vinay Kumar: Book Review of *Ecology, Culture and Change: Tribals of Sikkim Himalayas*, by Veena Bhasin. *J. Hum. Ecol.*, 1: 55-58 (1990).
- Seward, J.: *The Theory of Culture Change*. University of Illinois Press, Urbana (1955).
- Seward, J.: Cultural Ecology. *International Encyclopedia of Social Sciences*, 4: 337-344 (1968).
- Vidyarthi, L.P.: *The Malar: A Study of Nature-man-Spirit Complex in a Hill Tribe of Bihar*. Book Land Pvt. Ltd., Calcutta (1963).