

Socio-Ecological Profile of Birhor Tribal Community in Eastern Chotanagpur Plateau

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Introduction

The study of social ecology is a recent sprout in the broad field of human geography. Radhakamal Mukherjee, an Indian pioneer in this field, articulated the theory of social ecology¹. According to Ramachandra Guha, Radhakamal Mukherjee drew fascinating parallels between ecological influences on the plant, animal and human worlds respectively. Guha classified the concept of social ecology into two parts and those were the ecological infrastructure and the social models. He further classified social models into four sections such as social structure, culture, economy and polity². Murry Bookchin, a well-known North-American anarchist, elaborated the concept of social ecology. According to him, social ecology is concerned with the most intimate relations between the human being and the organic world around them³. Social ecology shows the reciprocity between ecological infrastructure (soil, vegetation, water body etc.) and different strata of human society. Tribal social ecology is an important segment of social ecology, which is concerned with the relationship between the tribe and their surrounding environment. It emphasizes on the social, institutional and cultural contexts of this relationship to analyse the complex societal issues. This approach is an appeal not only for moral regeneration but also and above all, for social reconstruction along ecological lines. It describes the entire system of domination like the domination of nature itself. It also defines the relationship between non-human and human nature. Tribal social ecology is a compatible marriage between the tribal society and ecology intrinsically weaved, tuned and blended with *ecosophy* and *geosophy* in principles and non-dualistic synergy of man and nature in approach and action. It discerns the interrelationship

between nature and social attributes such as social structure, culture, economy and polity⁴. So, the essence of tribal social ecology is to judge the human world from the perspective of different attributes of ecology and the traditional society.

The traditional life and livelihood of the Birhor tribe can be understood by using the concept of tribal social ecology. The Birhor tribal community is identified as Particularly Vulnerable Tribal Group (PVTG) of India. This little-known jungle tribal community is living particularly in the deep-forested uplands of the eastern part of Chotanagpur plateau. The main objective of this research is to understand the Birhor tribe in terms of five broad elements of social ecology. One can also understand the possible socio-ecological transformation of the settled Birhor tribe (*Jaghi*) in terms of their present ecological settings, cultural practices, economy and acceptance towards modern health care facilities and education after the cultural assimilation with other tribal and non-tribal communities by this study.

Objectives

Socio-ecological profile of the Birhor tribe is observed here by the five broad elements of social ecology such as ecology, social structure, culture, economy and polity. The surrounding ecology of the Birhor tribe can be understood by this research. One can find out the social structure of this tribe in terms of ecological settings. The cultural activities, rites and rituals of the Birhor tribal community can be surmised by means of tribal social ecology. The concept of tribal social ecology can also be exploited to understand the economy and polity of the said tribal community. Possible socio-ecological transformation of a particular settled Birhor tribal group (known as *Jaghi* Birhor) in terms of their ecology, culture, economy and acceptance towards modern facilities such as health care and education system is also observed in this study.

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Methodology

The study of the socio-ecological profile of the Birhor tribal community is based on the primary level survey and the anthropo-geographic approach and action. The survey was conducted by considering some of the conventional methods of anthropo-geography such as interviews, observations and genealogy. A questionnaire was prepared to conduct both structured and unstructured spot interviews of *Naya*, the headman of the Birhor tribe and the rest of the population of their *tanda* (settlement). All possible efforts were given to understand the ecology, economy, society, political status and some important cultural rituals particularly at the time of birth, marriage and death of this tribal community. The survey was also intended to acquire information about possible socio-ecological transformation among the settled *Jaghi* Bihors of Bhupatipalli *tanda* at Bagmundi block in Purulia district, West Bengal. Parameters such as influence of the cultural assimilation on the traditional culture, economy and their acceptance towards basic health care and conventional education system are considered in this regard to understand the possible socio-cultural changes of the Birhor tribal community. Here, the acceptance to basic health care facilities includes their access to health care centres, use of vaccination and family planning measures, offered by local family welfare center. Educational standards are analysed on the basis of enrollment of their boys and girls in the local schools starting from primary and going up to secondary classes (class X).

Socio-Ecological Profile of Birhor Tribe

The Birhor (*bir* means jungle and *hor* means man) is known as Particularly Vulnerable Tribal Group (PVTG) of India. This tribal group (earlier known as Primitive Tribal Group) is a Government of India classification, created with the purpose of enabling improvement in the conditions of certain communities with particularly low development indices⁵. Their habitat is restricted to the deep-forested uplands of the eastern part of Chotanagpur plateau. The Birhor tribe belongs to Proto-Australoid racial stock. Linguistically, this tribe belongs to Austro-Asiatic (Mundari) group. The present anthropo-geographic study is conducted at Purulia district in West Bengal. Purulia is topographically situated in the extended part of Chotanagpur plateau. In this district, the tribe lives in six villages across three community development blocks, namely Bagmundi, Balarampur and Jhalda-I. The population of the Bihor tribal community in Purulia district is very low which is about only 0.05 per cent of the total tribal population⁶.

Ecology and Social Structure

The Birhor tribal community is closely attached to their surrounding nature. The life of the tribe is based on their ecological base⁷. Traditionally, they call the whole world as *Utaye*. They divide the world into two ecological territories, one is *Disum* and another is *Muluk*. *Disum* is recognized as their own territory which is characterized by hilly terrain with deep forest coverage. They consider rest of the world as *Muluk*. On the basis of their habitat and present lifestyle, this tribe is categorized into two groups, one is *Uthulu* Birhor and other is *Jagghi* Birhor. The *Uthulu* Birhor tribe practice wandering lifestyle. They prefer to live in isolation, far away from the mainstream society. This type of Birhor is also known as a woodman, who generally lives in caves and uplands covered with deep forest. They maintain an autonomous social life. The *Jagghi* Birhor tribe is a settled community. They live in the foothills in close association with non-tribal population⁸. The Birhor tribe has a complex social structure. They have 37 clans (*killi*) such as Kuria, Dangrakutam, Hembrom, Indawar, Kher, Giddha, Topwar Lagri, Singpuria, Sovania, Bhuiya, Gicksiria, Nag, Nagpuria, etc.⁹ These clans do not function as exogamous units. However, all the members of a clan feel themselves unified primarily for having a common clan deity, known as *Buru Bonga*. The religious head of the Birhor tribe is known as *Naya* who is assisted by some subordinate functionaries such as *Kotwar*, *Diguar* and *Mati*. *Mati* plays the role of an *ojha* or sorcerer who minimizes the activities of witches in the locality. All of these religious positions are generally assigned on a hereditary basis. Sometimes, depending upon the situation, these position holders may also be elected by the community members¹⁰.

Cultural Practices

Birth

The Birhor tribe believes in *jiu* (spirit). They consider the birth of a child as a process of reincarnation of the spirit with the blessings of their Supreme Deity, *Sing Bonga* (Sun). They also believe that birth of a child symbolizes the progress of the whole community. The birth of a child usually takes place in their *orha* (traditional hut). The most experienced and aged women of the community acts as a foster-mother (midwifery) during the birth of a child. She generally cuts the umbilical cord with a bamboo knife to avoid infection. This act also indicates that they are born hunters. Child purification ceremony is generally organized at *tulsi than*, the place of their worship on the sixth day after the birth.

Marriage

Marriage in the Birhor tribal community is considered as the first step towards the procreation of a child with the blessing of their Supreme Deity. Marriage is taken as a symbol of expansion of the community. They believe in early marriage. The marriages are usually organized at the early teen ages of both the sexes. The newly married couple needs to build a new *orha* (hut) to enjoy conjugal life. Marriages in this community are monogamous in nature following the rules of tribe endogamy and clan exogamy. The Birhor tribe is known to practice multiple marriages in case of infertility, widowhood and widowerhood. There is a ritual, known as *kania ganam* where a token of bride price is given by the family of bridegroom at the time of negotiation. The bride price is generally paid in cash and in the form of some gifts like clothes for the bride and her family. After such negotiation, the community head *Naya* gives permission for the marriage. Many rites and rituals like *marawa*, *miti korawa*, *ubatan*, *haldi*, *tel*, etc. are involved in Birhor marriage system. *Ubatan*, *haldi* and *tel* rites are generally used to make the bride more beautiful. On the day of the wedding, both the bride and bridegroom take bath and wear new clothes. After that, the bridegroom comes to the *tanda* of the bride with his relatives. They are then welcomed with flowers and *handia* (a country beer). After refreshments, they take the bridegroom to the *marawa* (wedding place) where the bride has been waiting for the wedding. The bride and the bridegroom offer flowers to each other. They cut their little fingers slightly and rub the blood to each other as a token of love. Finally the marriage ends when the bridegroom puts vermilion on the forehead of the bride. All the family members celebrate the occasion by singing, dancing and taking *handia* and foods. Next day, the family members of the bridegroom return to their *tanda* with the new couple. Then, the newly married couple takes blessings from the elders and their *tanda* deities for sake of their healthy conjugal life. The bride stays in the house of her father-in-law only for a week and then she returns to her father's house. She comes back to the *tanda* of her husband after completion of one year of the marriage and then she starts to live in a separate *orha* with her husband.

Death

The Birhor tribe believes that there is a life after death and the process of reincarnation is known as *gach enaia*. In this process, the spirit leaves an old body (*hormo*) and gets rebirth. They consider the death of an old man as destiny. They also believe that unnatural death gives birth to an evil spirit, known as *churgin*. The Birhor tribe generally buries the dead bodies adjacent to a river or a rivulet.

Death related rituals are performed for one week. The ritual of purification is done on the seventh day¹¹.

Economy and Polity

The Birhor tribe depends on the forest to the extent of five-sixth of their total economy¹². Birhors are born hunters. The *Uthulu* Birhors generally engage themselves in daily hunting and food gathering. They hunt monkey, rabbit, wild rats and birds like *titir* (sandpiper), etc. in the forest by using different types of nets (*jhari*) such as *tur jhari* (*tur* means rat) and *gari jhari* (*gari* means monkey), catapult, bow and arrow, etc. The *Jagghi* Birhors are generally engaged as non-agricultural day labourers and as artisans. They also practice the age-old barter system with their neighbours from other tribal communities like Santhal. They usually exchange products like flesh of animals, fruits and ropes made of a local creeping plant, called *chihor-lata* with rice and other food items.

The Birhor *tanda* (settlement) acts as a unit of their political organization. The head of the *tanda* is known as *Naya*. He plays the role of social, religious and political head. The political structure is hereditary and hierarchical in nature. *Naya* is assisted by some subordinate workers such as *Kotwar* or *Diguar* and *Mati*. The *Kotwar* acts as a messenger who usually informs all the members of their *tanda* about the schedules of Panchayat meetings. The *Kotwar* gathers the people for the communal hunt and other purposes. The *Mati* helps people in religious and magical matters¹³. All forms of social disputes are discussed in their *tanda* Panchayat where the *Naya* declares his verdict and also gives punishment to the accused. *Jagghi* Birhors are more conscious and aware about their political rights and reservations than *Uthulu* Birhors.

Socio-Ecological Transformation among settled *Jaghi* Birhor Tribe

A specific study has been undertaken on the settled *Jaghi* Birhor tribe of the Bhupatipalli *tanda*, situated at the foothill of the Ajodhya hills of Purulia district, West Bengal to understand their possible socio-ecological transformation after the cultural assimilation with the local non-tribal and other tribal communities. Acculturation among the settled Birhor tribal community is examined by the possible socio-ecological transformation of this settled tribe in terms of present ecological settings, cultural practices, economic activities and their acceptance towards modern facilities and amenities particularly in health and education. Most of the Birhors of Purulia migrated from Ranchi, Hazaribagh, Dhanbad of Jharkhand state more than 150 years ago and finally settled in three blocks of

Purulia like Bagmundi, Jhalda-I and Balarampur. While earlier the tribe habitually lived in the inaccessible forests and hill areas of Purulia district, currently they live in houses built by the Backward Class Welfare Department, Government of West Bengal¹⁴.

The Bhupatipalli *tanda* is situated at the outskirts of Matiala village in Bagmundi block. At present there are a total of 49 households in the *tanda* with a total population of 184, including 89 males and 95 females. Here the settled Birhors have a common totemic emblem, known as *Shikari* (the hunter), generally used as their surname. It symbolizes their traditional professions as hunters and food gatherers and their close relationship with the surrounding ecology. In spite of the ecological change from forested uplands to the relatively plain lands of foothills, the settled *Jaghi* Birhors have a great connection with the forest. An interview with Chunu Shikari, the *Naya* (head) of Bhupatipalli *tanda* was a great opportunity to learn about the possible changes in their life and lifestyle after such cultural assimilation with the dominant non-tribal and other tribal communities of the village. He agreed that some new elements had penetrated their lives and livelihood after contacts with local villagers, government personnel and some non-government organizations. Now they often participate in some of the Hindu festivals like Durga Puja in the village. Such activities brought about changes in the norms and practices of this settled Birhor tribe. It is observed that this settled Birhor has some form of mixed practices in their marriage ceremonies. For instance, the use of vermilion (*sindura*) in a marriage may come from such assimilation between the *Jaghi* Birhors and the dominant Hindu communities. The use of vermilion though is not the main ritual of their marriage ceremony as that of the Hindu culture. The rubbing of blood to each other's forehead still persists as the most significant practice of their wedding ceremony, because it symbolizes their hunting nature.

Simplicity and self-sufficiency were the two main characteristics of the economic life of the tribal villages in the eastern part of the Chotanagpur plateau. Those were retained primarily due to local topographical features and the lack of communication between the tribal villages and the villages of the plain land and foothills of the plateau. These villages now have some economic links with the outside world to maintain some traditional economic activities like barter system and simultaneously to dispose their forest produce in the local markets. The *Jaghi* Birhors are vitally bound to local markets where they dispose of their jungle produce. Though always on the move, they are never far from a market centre¹⁵. The Birhors are mainly a nomadic community, but now most of them have settled down. As they are small landholders, they support their

economy by selling their labour, making and selling rope and by collecting and selling forest produce¹⁶. The settled Birhors of Bhupatipalli *tanda* primarily engage in collection of minor forest produce from the nearby forest. Beside this, they also work as labourer in the field of construction, household industry, rope-making, livestock forestry and agricultural sector etc. More than half of the total working force is engaged in collection of minor forest produce (32%) and as a day-labourer in the construction sector (24%). Rest of the economic force is engaged in rope making from a local creeping plant *Chihor-lata* (20%), agricultural labourer (17%) and other services (7%). None of them are found working in mining and quarrying activities. Interestingly enough, they do not practice *pub khata* (*pub* means east and *khata* means work), a typical economic activity of the agricultural labourers of both tribal and non-tribal population of Purulia who used to migrate seasonally to Bardhaman, Hooghly, and other districts of West Bengal as casual, daily wage earners in agriculture. They do all such activities in and around the village and its adjacent villages. They often sell out their collected forest produce like firewood, etc. and some household products like ropes, plates and bowls made of leaf, etc. in the local markets to earn money. The barter system is still alive particularly between the Birhors and other tribal communities like Santhal, where the Birhors usually exchange animal flesh, ropes for rice and other food items.

Presently, the settled Birhors sometimes go to the nearby health care centers for health checkups. But the rate of access to health care facilities is still at minimum level. MANT (Manbhumi Ananda Ashram Nityananda Trust), a non-profit organization, provides mobile health care facilities to the settled Birhors especially to their women and children. Due to the continuous intervention by such non-government and government bodies like the Backward Class Welfare Department, it has been observed that the *Jaghi* Birhors of Bhupatipalli have come to accept vaccination for their children. There is no single case of poliomyelitis as the whole *tanda* is already declared as polio free. But they do not accept any family planning measures offered by the local family welfare centre and any form of delivery system in the primary health centre or hospitals. Birth still takes place at home with the blessings of *Sing Bonga* (sun), the Supreme Deity.

The Birhor have a poor literacy rate¹⁷ though the present education status of boys and girls of the settled Birhors of Bhupatipalli is improving with the intervention of the State Welfare Department. As per the government sources, previously they did not send their wards to educational institutions.¹⁸ It is found that due to the continuous efforts from the government side, some Birhor parents now send their children to nearby

schools particularly for elementary education. Almost cent per cent of boys and girls of this tribal community have now taken to enrollment at primary level. However, the dropout rate at the high school level is almost cent per cent. Manju Shikari, a Birhor woman of Bhupatipalli, was the only student who passed the secondary examination. She had to stop her further studies due to her early marriage at the age of 16. The traditional culture like early marriage, economic backwardness, and low literacy level of the parents are possibly the main detrimental factors which do not allow them to continue their studies.

Conclusion

Tribal social ecology explains the interrelationship between ecology and tribal society. In this study, I have tried to give a clear picture on the life and livelihood of the Birhor tribal community living in the extended part of the eastern part of Chotonagpur plateau by means of tribal social ecology. The present study highlights on ecology, social structure, culture, economy and polity of the Birhors. There is a close and keen relationship between their habits and habitats. They have a complex social structure depending upon their ecological base. A part of Birhor tribal community prefers to live in isolation and far away from modern civilization. Another part of this community are settled who share the same ecological, cultural and socio-economic base of non-tribal and other tribal communities. The study of socio-ecological transformation of the settled Birhor tribe of Bhupatipalli *tanda* indicates that due to ecological change and cultural assimilation, the age-old traditional cultural practices and beliefs of the Birhor tribe are influenced to some extent by relatively more dominant cultures of the non-tribal communities. Economy of the settled Birhor tribe is still based on the forest and the forest produce. They still practice barter system to sustain their economy. The impact of acculturation gradually alters their economic activities. Now, they are working as labourers in non-agricultural, agricultural and household industries. Awareness towards health care and education is now at its initial stage. Previously they did not send their children to educational institutions and did not go to the hospitals and health centres for treatment. But after continuous intervention from some of the government and non-government organizations, they are starting to believe in the benefits of conventional health care facilities and education system. The complete polio immunization at Bhupatipalli is an example of such change in this community. However, some traditional practices like early marriage and extreme poverty continue to prevent both boys and the girls of this settled *Jaghi* Birhor tribal community from achieving education. Irrespective of

such isolation and assimilation, both *Uthulu* and *Jaghi* Birhors are able to retain their inherent culture and identity. The development of any society depends on its economic growth without destroying the ecological base. Therefore, if the Birhors become deprived of their base, then they will have no alternatives other than to accept subordination under the dominant community of peasants.

Glossary of technical terms used by the Birhor tribe

<i>Utae</i>	:	The whole world
<i>Disum</i>	:	The natural environment of the Birhor tribe
<i>Muluk</i>	:	The unknown territory occupied by the non-tribal communities
<i>Tanda</i>	:	The settlement of the Birhor tribe
<i>Orha</i>	:	The hut of the Birhor tribe
<i>Killi</i>	:	The close-knit group of interacted people united by kinship and descent
<i>Uthulu</i>	:	The nomadic Birhor tribe lives in deep forested uplands
<i>Jaghi</i>	:	The settled Birhor tribe
<i>Naya</i>	:	The head of the Birhor tribal settlement (<i>tanda</i>)
<i>Buru Bonga</i>	:	The deity of the Birhor tribe, living in the hills (<i>Buru</i>)
<i>Sing Bonga</i>	:	The supreme deity of the Birhor tribe (the sun)
<i>Churgin</i>	:	The evil deity
<i>Jiu</i>	:	The spirit
<i>Gach Enaia</i>	:	The process of reincarnation
<i>Tulsi than</i>	:	A common place of worship of the settled Birhor tribe
<i>Kania Ganam</i>	:	A traditional cultural practice organized during settlement of the marriage
<i>Marawa</i>	:	A traditional wedding place of the Birhor tribe

Notes

1. Mukherjee, R.K. *Social Ecology*, London: Longmans, Green and Co., 1942.
2. Guha, R. *Social Ecology*, New Delhi: Oxford University Press, 5, 8 & 12, 2008.
3. Bookchin, M. *Ecology and Revolutionary Thought*, *Antipode*, 89, 1978-79.

4. Mukherjee, S., Malik, U.S. and Chattopadhyay, P. "Perspectives on Social Ecology of Tribes of Purulia District, West Bengal." *Practising Geographers*, Kolkata: Journal of Indian Geographical Foundation, 12: 163, 2008.
5. Patel, B.M.L. *Agrarian Transformation in Tribal India*, Delhi: M.D. Publication Pvt. Ltd., 313, 2013.
6. censusindia.gov.in
7. Sinha, C.S. "Foreword", cited in *Society and World View of the Birhor: A Nomadic Hunting and Gathering Community of Orissa*, A. K. Adhikary, Kolkata: Anthropological Survey of India, p.vi. 1984.
8. Mukherjee, S. "Tribal Environment and Development Issues: A Case Study of Purulia District (W.B.)." *Social Action*, New Delhi: Social Action Trust, 61: 394, 2011.
9. Roy, Sarat Chandra. *The Birhors: A Little-Known Jungle Tribe of Chota Nagpur*, Ranchi: Man in India, 1925.
10. Adhikary, A.K. *Society and World View of the Birhor: A Nomadic Hunting and Gathering Community of Orissa*, Kolkata: Anthropological Survey of India, 43 & 69-70, 2008.
11. www.jharkhnd.org.in/adivasi
12. Rai, B.K. *Nature and Man: A Study of Interaction between Man and Forest in Chotanagpur*, (PhD thesis, Ranchi University, unpublished, 98, 1967), cited in Vidyarthi, L.P. and Rai, B.K. *The Tribal Culture of India*, New Delhi: Concept Publishing Company, 144, 1985.
13. Vidyarthi, L.P. and Rai, B.K. *The Tribal Culture of India*, New Delhi: Concept Publishing Co., 210, 1985.
14. <http://www.anagrasarkalyan.gov.in/htm/Birhor.html>
15. Sachchidananda. *Profiles of Tribal Culture in Bihar*, Calcutta: Firma K.L. Mukhopadhyay, 3 & 151, 1965.
16. Chowdhuri, M.K., Roy, D.K., De, S. and Basu, S. *Ethnographic Notes on the Scheduled Tribes of West Bengal*, Cultural Research Institute, Backward Class Welfare Department, Govt. of West Bengal, Kolkata: Saraswaty Press Ltd. (Govt. of West Bengal Enterprise), 18, 2003.
17. Panda, S. "The Development of Primitive Tribal Groups: A Case Study of Lodha and Birhor of West Bengal." *Worldwide journal of Multidisciplinary Research and Development*, 1(6), 28-35, 2015.
18. [http://www.purulia.gov.in/dist Admin/departments/bcw/birhor.html](http://www.purulia.gov.in/dist_Admin/departments/bcw/birhor.html)

Bibliography

- Adhikary, A.K. *Society and World View of the Birhor: A Nomadic Hunting and Gathering Community of Orissa*, Kolkata: Anthropological Survey of India, 43 & 69-70, 2008.
- Bookchin, M. *Ecology and Revolutionary Thought*, *Antipode*, 89, 1978-79.
- Chowdhuri, M.K., Roy, D.K., De, S. and Basu, S. *Ethnographic Notes on the Scheduled Tribes of West Bengal*, Cultural Research Institute, Backward Class Welfare Department, Govt. of West Bengal, Kolkata: Saraswaty Press Ltd. (Govt. of West Bengal Enterprise), 18, 2003.
- Guha, R. *Social Ecology*, New Delhi: Oxford University Press, 8 & 12, 2008.
- Mukherjee, R. K. *Social Ecology*, London: Longmans, Green and Co. 1942.
- Mukherjee, S., Malik, U.S. and Chattopadhyay, P. "Perspectives on Social Ecology of Tribes of Purulia District, West Bengal", *Practising Geographers*, Kolkata: Journal of Indian Geographical Foundation, 12:163, 2008.
- Mukherjee, S. "Tribal Environment and Development Issues: A Case Study of Purulia District (W.B.)." *Social Action*, New Delhi: Social Action Trust, 61:394, 2011.
- Panda, S. "The Development of Primitive Tribal Groups: A Case Study of Lodha and Birhor of West Bengal." *Worldwide Journal of Multidisciplinary Research and Development*, 1(6), 28-35, 2015.
- Patel, B.M.L. *Agrarian Transformation in Tribal India*, M.D. Publication Pvt. Ltd., 313, 2013.
- Rai, B.K. *Nature and Man: A Study of Interaction between Man and Forest in Chotanagpur*, (PhD thesis, Ranchi University, unpublished, 98, 1967), Cited in: Vidyarthi, L.P. & Rai, B.K. *The Tribal Culture of India*, New Delhi: Concept Publishing Company, 144, 1985.
- Roy, Sarat Chandra. *The Birhors: A Little-Known Jungle Tribe of Chota Nagpur*, Ranchi: Man in India, 1925.
- Sachchidananda. *Profiles of Tribal Culture in Bihar*, Calcutta: Firma K.L. Mukhopadhyay, 3 & 151, 1965.
- Sinha, C.S. "Foreword." Cited in A.K. Adhikary, *Society and World View of the Birhor: A Nomadic Hunting and Gathering Community of Orissa*, Kolkata: Anthropological Survey of India, p. vi. 1984.
- Vidyarthi, L.P. and Rai, B.K. *The Tribal Culture of India*, New Delhi: Concept Publishing Co., 210, 1985.