Application of Digital Ethnography for Sustainable Tribal Development

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Abstract

India, has over 500 tribal groups. Of these there are about 75 Primitive Tribal Groups (PVTG) that do not conform to formal agricultural practice and are known as pre-agrarian societies. These PVTGS are generally forest dwellers, have low literacy, are economically backward and have a steadily declining or stagnant population. These tribals and the forests have a unique symbiotic relationship, forming indelible bonds in the ecosystem. The livelihoods, health and very viability and sustenance of the tribals depend upon the health of the forest. It is of great significance that this bond be recognized and propagated across spatial and temporal domains. A comprehensive understanding of the tribal culture, nature and climate knowledge continuum is essential to strategize for sustainable tribal development.

This paper uses the orientation of anthropological theory to understand Human Development in terms of the survival needs and forest dependant livelihoods of tribal populations with the application of Digital Ethnography and its resultant outcomes.

Key Words: Forest, Tribal Society, Digital Ethnography, PVTG, Human Development

Introduction

Indigenous communities like the tribes of India, have claimed the forests as their natural ancestral habitat which in turn have given them distinct social institutions and cultural practices, unique dialects and kinship ties that are an inherent inscription of their inherent identity. India is home to 500 tribal groups. Among these, there are about 75 Primitive Tribal Groups (PVTG) which do not have any formal agricultural practices and are therefore known as pre-agrarian societies. The PVTGS are generally forest dwellers. They have low literacy levels, are economically backward, and have been characterised as a stagnant or declining population. These tribes have established a unique ecosystem of subsistence because the tribal and the forests have a unique symbiotic relationship as they continue to co-exist as part of the environment and the ecosystem. The livelihood and health of the tribal depends upon the health of the forest which is currently under threat due to clearance of large areas. Acceptance of the reality of how the deforest action has caused drying up of the water bodies, soil erosion and successive depletion of the rich biodiversity. The vast and extensive deforestation has exposed tribes to face the increasing risk of vulnerability and consequent poverty and malnutrition threatening their very existence.

For understanding and stretegizing for sustainable tribal development it is essential to have a comprehensive understanding of the tribal culture, nature and climate knowledge. Several studies have shown that the Human Development Index of the tribal communities in India is lower than that of the non-tribals inhabiting the same landscape.The HDI and HPI for the scheduled tribes has been found to be around 30 per cent lower than the corresponding all-India indices (Sarcar et al., 2006).

It is consequently a serious concern as to why the tribals are suffering from poverty and malnutrition.

Focus of Discussion

The four-fold purpose of strategic planning for projected by this paper includes (i) Understanding Human Development, (ii) Orientation of anthropological theory related to survival needs and livelihoods of the tribals (iii) Applying Digital Ethnography for Tribal Development (iv) Outcomes of applying Digital Ethnography

Human Development Index

The objective is to understand what meant by Human Development? How can we apply the methods of Digital Ethnography for Sustainable Tribal Development? The approaches to Sustainable Tribal Development needs to be designed and structural around the framework of socio-ecological systems which were evolved following the concept of HDI (Human Development Index) as referred to by the UNDP globally with the three key dimensions of: (i) long and healthy life, (ii) being knowledgeable of everyday essential information (iii) having a decent standard of living.

The dimensions of HDI that is the Health-Knowledge-Resource context of survival are interdependent. Neither of these can be achieved in isolation. Human societies have inherent cultural practices and social institutions that are the regulatory mechanisms for maintaining equilibrium and social harmony. Focussing on these three dimensions, IBRAD has designed astute anthropological methods where understanding the Community's worldview, cognitive Knowledge, and cultural practices have been considered as integral parts of the study.

Orientation of Anthropological Theories Related to Livelihoods Generation

Malinowski, one of the founders of Anthropology, has indicated that humans as a biological species have to necssarily meet their physiological needs like food, shelter and reproduction. Individuals require cooperation among themselves to collectively work together for procurement of food. They tend to form a cohesive group. Once the group works together within the tenets of collective action there is felt the need to frame rules because the roles and responsibilities arise and it becomes essential to designate who will do what, how and to what extent. Rules determine procedures for all activities and in turn gave birth to social institutions. Malinowski argued that satisfaction of these needs transformed the cultural movement (Goldschmidt 1996:510; Voget 1996:573). With time social institutions like religion, kinship and the economy become the organs of human society. Another anthropologist Radcliffe-Brown suggested that human society has several

other institutions that go beyond the mere meeting of physiological needs. He focused on social structure rather than biological needs. Thus, Malinowski's successors saw the concept of functionalism which was developed between 1910 and 1930 and later on saped as structural-functionalism, the approach advanced by Radcliffe-Brown. Each institution has the personnel, a charter, norms or rules, activities, material apparatus (technology) and a function. Malinowski argued that the satisfaction of these needs transformed the instrumental cultural movement. (Goldschmidt 1996:510; Voget 1996:573). It is well known that A.R. Radcliffe-Brown (1881-1955) was the founding father of functionalism associated with the branch of anthropological thought known as structural-functionalism.

If an anthropologist following Malinowski, has to study the tribal community or any community, he or she would have to study how the community was meeting its survival needs or in other words what form of livelihood support were they, seeking and sustaining for survival. Referring to Radcliffe-Brown, it is essential to ascertain the different social institutions which were created for gaining attributes over and above the physiological needs. What are the mechanisms that maintain a network of social relations for existence, and how do they work? Sir Edward Burnett Tylor was a British Anthropologist and is regarded often as the founder of modern anthropology. He became the first anthropology professor at Oxford University where he taught from 1896 upto 1909. His primary goal was to to develop a framework in which the evolution of culture could be explained. Tylor said that culture is, "that complex whole which includes knowledge, belief, art, law, morals, custom, and any other capabilities and habits acquired by man as a member of society" (Tony Bennett, 2015). Radcliff-Brown also mentioned that morals, law, etiquette, religion, government and education are all parts of the complex mechanism by which a social structure exists and persists. On the other hand Emile Durkheim advised that ethnographers should study the function of social institutions and how they function together to maintain the social whole (Brce 1973:39-40).

Based on the above theory of Malinowski the essentiality meeting physiological needs, and then moving towards the requirement of other palliative institutions and attempting an understanding culture it is necessary to plan and develop strategies to improve livelihoods, all towards strengthening of the HDI. Research has been designed to connect social-cultural dynamics, the forest landscape, processes to improve human health and the forest ecosystem's health with the application of ecological principles. On the footsteps of such research is the development of capacities and social institutions that promote the building for survival as the first step towards an intervention. It is critical to understand what people need to improve upon and maintain the ability to sustain their quality of life and well-being.

Approaches of Digital Ethnography For Studying and Consequent Development

The ethnographic approach has been used to enhance anthropological understanding of the Nature-Culture-Social systems continuum since the 19th century. However, recently, due to constraints imposed by the Covid pandemic, Digital Ethnography has emerged as an option for utilizing digital technology as a tool for amassing ethnographic knowledge which would prove useful to interview participants of a given community atainst the backdrop of their natural habitat. It is essential to identify the community for study and subject its

members to the tools of interview using the modality to get connected across digital media. This is a sensitive art that uses the anthropological approach to establish rapport through video conferencing facility and promotes the establishing of a '*Societal Platform'* for continued periodic discussions. Such a programme may be used effectively and efficiently for longitudinal ethnographic study.

The application of Digital Ethnography is diverse and can be used to study the tribal culture, social institutions in their natural setup and applying anthropological theories for Participatory Action Research (PAR) for tribal development and framing of practical interventions. Ethnography is a traditional approach to studying culture in a people's natural environment with specific methods of participatory observation within field immersion. Digital Ethnography is an emerging discipline to connect people online and builds an interface for studying societies and cultures long distance. Digital ethnography is an emerging field in ethnography. It poses questions about the communicative phenomena in a technologically mediated world. Digitized spaces today are where communities of all kinds exist. The process involved the study of worldview, identifying proactive leaders and building the Community Resource Person (CRP) capacity as a change-maker. The community gets involved in establishing an effectively interactive Outreach Program through a built-in 'Prashikshan shivir' or 'Experimental Camp' in each village. Indian anthropology, is seeing this procees being built up at the nascent stage. While many are experimenting and talking feelers no other organization or individual researcher has been using it for Participatory Action Research for ggalvanizing tribal development. The keystone of Digital Ethnography for facilitating tribal development is creating a 'societal platform' and ensuring an environment of individual and collective social learning through virtual classrooms.

Essentials of Interventional Ethnographic Approach for Tribal Development

There are five essential parts of field study in the case of interventions, namely:

(i)   Understanding the features of the natural landscape as a habitat of the community

(ii)   Social system comprising the structure and institutions that hold society in equilibrium

(iii)   Cultural traits and practices to assess the process of acculturation thereby- co-adaptation forms a vital component of ethnographic research and therefore, conducting such processual analysis is critical.

(iv)   Existing public policy and its relevance to the issues related to livelihoods and social development

(v)   Strategic Plan for capacity building and indications of the adoption of appropriate technology

It is essential to plan how knowledge gained by the ethnographer may be used for accruing multiple benefits to the community. It has been coined to be reciprocal development as it results in the professional gain for the ethnographer and developmental gain for the community.

Verifiable and Quantifiable Outcomes of the Project

Several training materials are produced during the course of the process which have been used for the training of the tribal Community. Digital Training Modules, were developed in the form of numerous short videos for virtual classrooms and the quintessential workbook was the essential requirement for conducting trainings among the tribal community. Thus, these are certain critical requirements in Digital ethnography for the prerequisite of capacity building towards tribal development.

IBRAD has initiated a Model of 'Conservation based Sustainable Livelihood Development' through digital technology, with the use of digital technology inputs like the smart phones as the ICT Tool for face-to-face interaction with the remotely located tribal communities, particularly the PVTGs (Particularly Vulnerable Tribal Groups) is parts of Odisha and Chhattisgarh States, since August 2020.

Digital Ethnography Initiated Training Programme

Organic Nutrition Sabji Badi

The trainings resulted in the formation of 27 Sabjibadi or kitchen gardens that are being promoted as nutrition gardens by the Baiga PVTGs of Ghoghra village under the West Pandariya Block in Kabirdham district, Chhatisgarh. This pioneering effort helped established the Sabjibadi as a season wise active source of production of organic vegetables. It greatly improved the consumption of nutritious vegetables at the household level thereby reflecting directly in the improved health of the tribal community. Surplus vegetables are shared generally with neighbours and friends and after vselling of spare vegetables to earn additional, supplementary income results in savings when the vegetables reach the market

Water Conservation And Fishery

The Baiga community ientified four points along the streams flowing besides the river of Ghogra village. The community identified certain activities during the preparation of micro plans. Conservation of rain water was done through construction boulder check dams by the Baiga themselves. The water, thus collected ahs been used for bathing, washing and as a source of drinking water for the cattle. The water conservation measures adopted by the community have improved the soil moisture content . The water is also used extremely for irrigation purposes. Fisheries or Pisciculture has helped as another means of livelihood and income generation. It has been a constant source of nutrition and extra income. Two ponds in the village were identified for community based fishery development where for the first time they harvested 192 kg fish that was distributed among 48 members of the tribal family responsible for the project.

Vermicompost For Organic Manure

Six groups were formed with three members each for production of vermicompost or organic manure. The digital training module developed by IBRAD helped the tribal community member to adopt construction of vermicompost pits and produce organic manure as vermicompost. The use of this manure in own farm land

reduced the inordinate use of chemical fertilizers. Such activities helped as they were proving to be a source of earning revenue and maintaining soil health besides reducing soil and water pollution.

Seed Bank

Seed Bank has been encouraged and established for conservation of indigenous seeds to improve the nutritional food value and land-use practices. Training on multiple cropping, improved yield and sustainable productivity has helped the tribals earn additional income and ensure food security. New crops like potato were produced for the first time by 56 villagers.

Herbal Garden and Retaining Indigenous Knowledge

An interesting aspect of the intervention mode has been the involving of the local Vaid or the traditional healer into sharing knowledge of the cultivation, collection and preserving of medicinal plants that are getting rare and of endangered in the local forest areas. This expertise was used to create herbal gardens for the ex situ conservation of 12 varieties of indigenous medicinal plants. Digital documentation of the medicinal plants, their medicinal properties and their multiple usage was done by involving the local community. The herbal garden concept has been well received and has proven to be helpful in conservation of rare and endangered plants.

Such herbal gardens are being cultivated by many Lodha tribals from Nedam in Odisha. The Baiga in Ghoghra of Chhattisgarh district have also adopted the scheme. This conservation of medicinal plants has helped in the preserving of some importantat herbs which will help retain indigenous knowledge for posterity. It is an essential step towards the revitalization of traditional health systems besides proving to be a source of additional income

Fruit Trees – Production of nutritious fruits and their consumption has mproved the nutrition per se and has proven to be as steady source of additional income, maintaining biodiversity through cultivation of indigenous varieties and also manifested prevention of soil erosion.

Nursery – Production of quality planting materials at the village level has also proved to be an additional source of income for the tribals. They are enabled to sell the sapling. The plantation in the villages has tended to greatly improve the environmental conditions of the area.

Conclusion

Thus, the experimental stage of IBRAD's interventions using the approach of Digital ethnography has shown the way for making newer inroads into the mysteries of ethnographic research fields. Undaunted by the several hurdles pored by the global pandemic the anthropologist has gone on slowly though steadily to attain the goal of sustained development among PVTGs in the States of Odisha and Chattisgarh.

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