

Ethnoecological Analysis of Gond Tribal System in Sidhi District, Madhya Pradesh, India

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ABSTRACT Present paper deals with ethnoecological analysis of Gond tribal system in Sidhi District of Madhya Pradesh. For present investigation six tribal villages were selected with a view to analyzing forest, agriculture and urban impacts on the ethnic system. Human component analysis and their forest and urban dependence was done to understand the ethnic population status and its environment, its life supporting system and drift towards urban influences.

INTRODUCTION

Ethnoecology is concerned with the study of ethnic communities in their natural environment. The total component of an ethnoecological system is ethnic community. Various ethnic communities are important components of ethnoenvironmental system as they possess essential ecological structure and population functions. Ethnoecological studies are not only useful from the view point of evolving management guidelines for managing the ethnoecosystems with particular reference to tribal communities in the present context but also give insight to understand the most fundamental aspects of an ethnoecological system like biological, cultural, socio-economic and ecological status thus presenting an integrated picture of the ethnic community.

A number of workers have attempted ethnoecological approach to study different tribal populations. To mention a few significant contributions are those of Mishra (1986), Singh, M. (1988), Singh (1990), Khatoon (1991), Awasthi (1993), Awasthi and Shukla (1992), Awasthi et al. (1993) and Singh, R. (1992). The present study aims at investigating ethnoecological aspects of the Gond ethnic system in the district of Sidhi as the Gond constitute

an important component of Sidhi tribal population. The aspects covered during the present investigation are human component analysis, dependence on natural system and man made urban produce, socio-economic and ecological status of the Gond ethnic system.

MATERIAL AND METHODS

The present study was conducted in six tribal villages in Sidhi district viz. Sajaha, Satnara, Kathas, Hanumangarh, Barigama, Akori. The location of these villages are shown in geographical map of the district (Fig. 1). The village Sajaha and Satnara have been identified as agricultural society as the majority of families practice agriculture. The villages Hanumangarh and Kathas have been identified as forest villages as their major source of income comes from nearby forest system. The village of Barigama and Akori are identified as urban society as only a few families possess agriculture and the majority of population earns money from urban nature of working.

A questionnaire based survey was conducted in all the six tribal villages selected for the present study. For analysing certain aspects like human component analysis, domesticated animals, socio-economic status, sex ratio, educational status, utilization of forest and urban resources and the people's dependence on them.

RESULT AND DISCUSSION

The data for human component analysis has been given in table 1. A state of imbalance in sex ratio has been noticed in all the six villages under consideration. The sex ratio

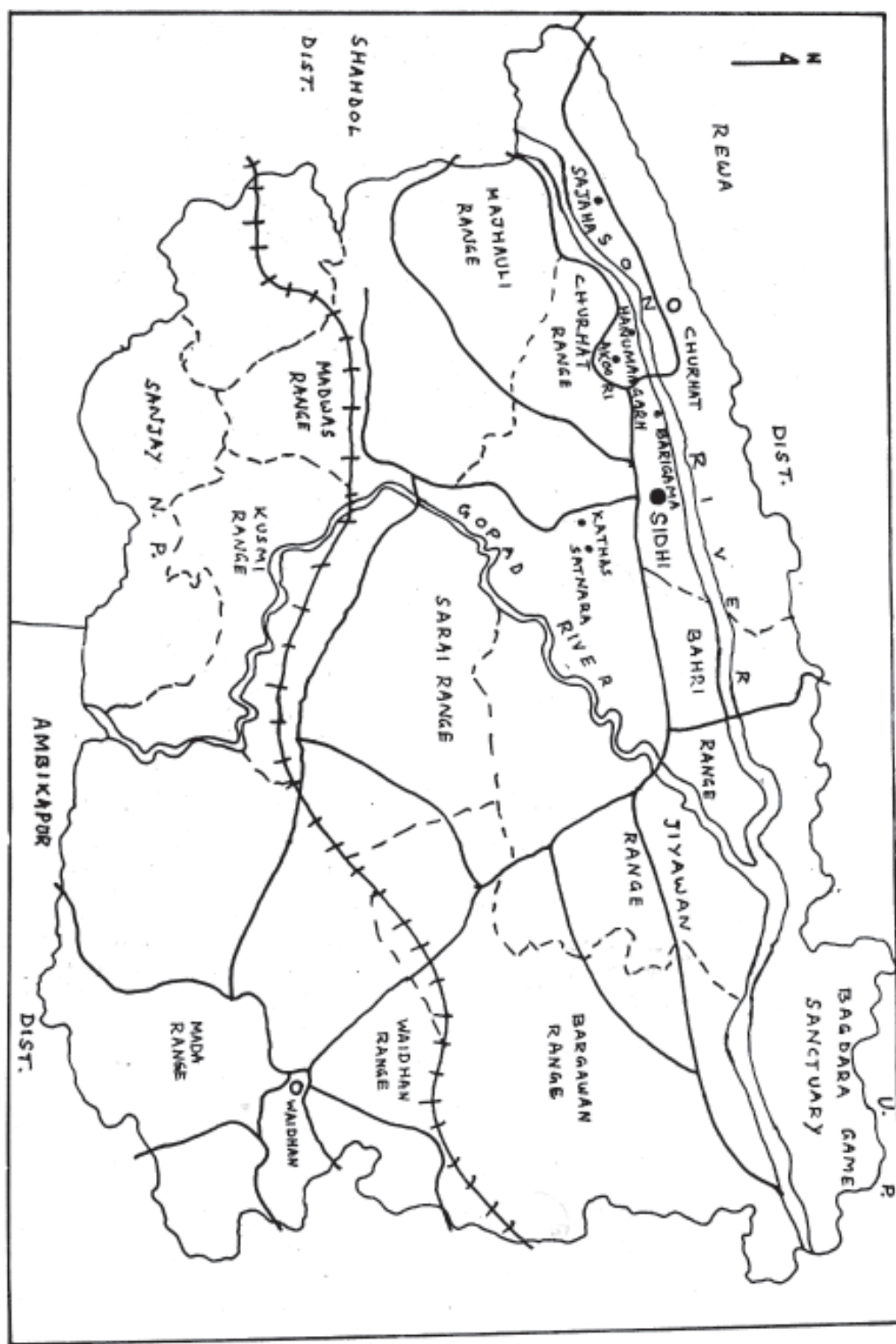


Fig. 1. Map of Sidhi District showing the Study Sites

Table 1: Human component analysis

Name of village	Population status		Female per 1000 Male	Educa- tion Status literacy (%)	Ratio of man and animal	Occupation satus					
	Male	Female				Agri- culture	Landless agr. labour	Contract labour	Multiple occupa- tion	Govt. service	Begger
AGRICULTURE VILLAGE											
1. Sajaha	57	48	842	4.76	1:0.84	65	8	2	30	—	—
2. Satnara	55	43	781	5.10	1:1.45	60	4	—	34	—	—
FOREST VILLAGE											
3. Kathas	57	44	772	2.97	1:1.29	25	10	6	60	—	—
4. Hanum- angarh	84	62	738	1.36	1:0.77	30	42	9	65	—	—
URBAN VILLAGE											
5. Barigama	79	71	898	5.33	1:1.01	25	27	30	68	—	—
6. Akoori	91	72	791	4.29	1:1.36	18	38	60	35	10	2

values recorded 842 and 781 females per 1000 male for Sajaha and Satnara ethnic system (agricultural society), 738 and 772 females per 1000 male for village Hanumangarh and Kathas (Forest society) and 898 and 791 females per 1000 male for Barigama and Akoori ethnic system (Urban societies). The data reveal that the number of females is much less than the number of males. The situation can be explained as follows : That the imbalance of sex ratio due to much less number of females population makes the population vulnerable to external influences and opens the community for gene flow from external ethnic group meaning thereby adoption of females and marriage to external ethnic groups. The urban societies are more vulnerable than agricultural and forest societies. Literacy among all sections of Gond ethnic societies is quite poor and indicates that socio-economic benefits and the benefits of tribal welfare programmes have yet to reach the ethnic community.

The occupation analysis of the tribal system reveals that the Gonds tribe in general facing economic stress only agricultural societies have economic stability in terms of agriculture. The forest societies depend on natural available

resources (Forest produce) and an periodical jobs as labourers while the urban societies have no other alternative except to work as labourers.

The situation of man and animal ratio speaks that the man and animal ratio in Gond villages roughly ranges between 1:1 and 1:1.5 meaning thereby that for every one person of the population there is one animals and some times more. The situation for agricultural societies is understood that they need animals for agriculture and also feed their animals from agricultural waste. The situation for forest and urban societies is vastly different and can be understood as to double the pressure on surrounding resource system and also on tribal population in terms of economic stress. The poultry animals of course provide some economic gain but not so much to overcome economic stress facing the ethnic system.

Forest Utilization Analysis

The relevant processes and factors responsible for the forest utilization in the study area have been identified as well as quantified in order to have an idea of their impact on ethnic system and the exploitation pressure on the forest resource system (Table 2).

Table 2: Forest resource utilization

								(All values are per annum basis)	
Village name	Gond population	Firewood (kg)	Fruits (kg)	Tendu leaves (kg)	Other leaves (kg)	Gum resins (kg)	Mahua flower (kg)	Total	Per capita
AGRICULTURE VILLAGE									
1. Sajaha	105	43420 (43420)	290 (5220)	9351 (23377)	70 (28)	115 (230)	3720 (10229)	(82504)	(785.75)
2. Satnara	98	34910 (34910)	290 (5220)	7475 (18687)	160 (64)	150 (300)	2960 (8140)	(67321)	(686.95)
FOREST VILLAGE									
3. Kathas	101	46610 (46610)	595 (19710)	10370 (25925)	1030 (412)	195 (390)	3780 (10385)	(103432)	(1024.07)
4. Hanumangarh	146	72550 (72550)	690 (12420)	13340 (33350)	580 (232)	345 (690)	4420 (12163)	(131405)	(900.03)
URBAN VILLAGE									
5. Barigama	150	15358 (15358)	225 (4050)	12120 (30300)	130 (52)	80 (160)	2770 (7617)	(57537)	(383.58)
6. Akoori	163	27788 (27788)	205 (3690)	10470 (26175)	296 (116)	60 (120)	3500 (9625)	(67514)	(414.19)

(Values represented in parenthesis are in Rupees)

Forest Utilization has been discussed under two Categories

- (1) General forest utilization directed towards the utilization of different species as firewood, timberwood for housing and other purposes, fruit, gum, bark, and resin collections.
- (2) Specific forest utilization directed towards specific plant species like collection of leaves from *Diospyros melanoxylon* (Tendu), *Butea monosperma* (Palas), *Bauhinia vahlii* and flowers from *Madhuca indica* (Mahua) etc.

The overall average collection rates of different forest produce have been calculated for the Gond ethnic system taking into account total collections of different forest produce and the population of all the six villages. This gives us an integrated picture of the average collection rates of the different forest produce by the Gond ethnic system under consideration.

— Firewood collection rate comes to 0.81 kg/person/day.

— Timberwood collection rate comes to 53.04 kg/person/year providing and economic saving of Rs. 106.08/person/year when this free collection from nature is valued in terms of rupees.

— Fruit collection rate for gum, bark, resin etc. comes to 1.30 kg/person/year.

— The overall collection rates for tendu leaves comes to 83.95 kg/person/year.

— The overall collection rates of palas leaves comes to 3.19 kg/person/year.

— The Mahua flower collection rate comes to 28.88 kg/person/year.

All the above mentioned items are gathered without any economic investment by the ethnic population from the surrounding forest system. If we calculate the market price of each of collections we can very well say these items coming free of charge definitely provide economic saving to the ethnic populations.

Resource Dependence Analysis

Resource dependence analysis in the present work has been done in order to know per capita material, energy and economic gain/saving on

Table 3: Urban resource dependence

Village name	Gond population	Grains (kg)	K.oil (kg)	Edible Oil (kg)	Bamboo & Other Woods	Cloth	Condi-ments (kg)	Misc.	Total	Per capita
ARICULTURE VILLAGE										
1. Sajaha	105	5900 (23600)	297 (891)	204 (6732)	2880 (4320)	(7840)	(1570)	(3220)	(48173)	(458.79)
2. Satnara	98	5890 (23560)	305 (915)	180 (59.40)	(3750)	(7480)	(1220)	(4810)	(47675)	(486.48)
FOREST VILLAGE										
3. Kathas	101	5610 (22440)	411 (1233)	250 (8250)	5000 (7500)	(8770)	(1910)	(5110)	(55213)	(546.66)
4. Hanuman-garh	146	10000 (40000)	1030 (3030)	421 (13893)	5800 (8700)	(13940)	(2750)	(9050)	(91363)	(625.77)
URBAN VILLAGE										
5. Barigama	150	15710 (63840)	505 (1725)	605 (19965)	6400 (9600)	(16000)	(3510)	(13460)	(128100)	(854.00)
6. Akoori	163	20730 (82920)	1303 (3909)	470 (15510)	10100 (15150)	(19940)	(3890)	(14670)	(155989)	(956.98)

(Values represented in parenthesis are in Rupees)

account of various resource inputs. Table 3 presents data on resource dependence. The relevant resource system which have been considered for resource dependence analysis are forest, agriculture, animal and urban resource system (Figs. 2, 3).

It is clear from the overall resource dependence analysis that the forest and agriculture resource systems are mainly providing economic support to the ethnic population. Animal resource system provide very little economic support may be because of poor nutrition and maintenance and thus can be treated as a liability on the ethnic population. The role of forest resource system is much more vital because of free forest inputs without any investment and also any legal exploitation check as the tribals have been provided right over the forest by law as far as their demands for basic 'Nistar' is concerned. The agricultural system requires some of the basic inputs like seed, ploughing, agricultural implements etc. thus requiring a basic economic investment. It is therefore obvious that the forest system

dominate agricultural system in providing economic support to the ethnic population.

The urban resources available in nearby urban markets and periodical village markets significantly play a role in improving life style of the ethnic population. The purchase of urban items results in money outflow from the ethnic system. The attraction towards urban produce and life style will naturally increase the demand for the more money which is obviously put exploitation on easily availing forest resource system, the life supporting system.

It is concluded from the present study that Sidhi Gond Tribal System is facing a great economic crisis and it is of utmost importance that the ethnic population should immediately be provided with means of economically stability in terms of agricultural land and facilities in forest periphery regions to avoid encroachment of forest land for agriculture. The ethnic population together with the animal population is not a static system and thus will change with time and may exert pressure on surrounding natural environmental system. The surrounding environmental system is also

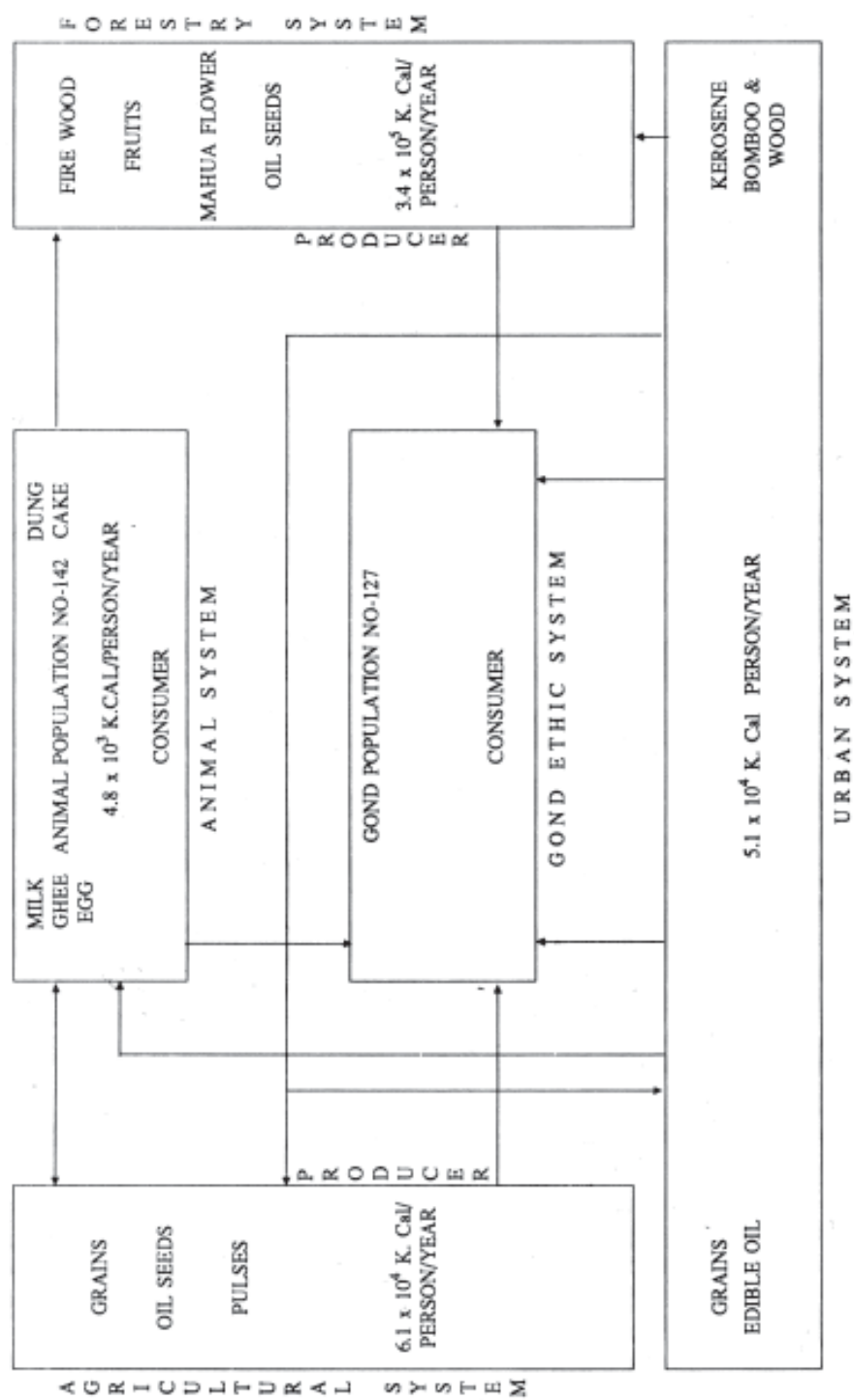


Fig. 2. Per capita energy input and utilization of Gond ethnic system (based on average of six Gond villages under study)

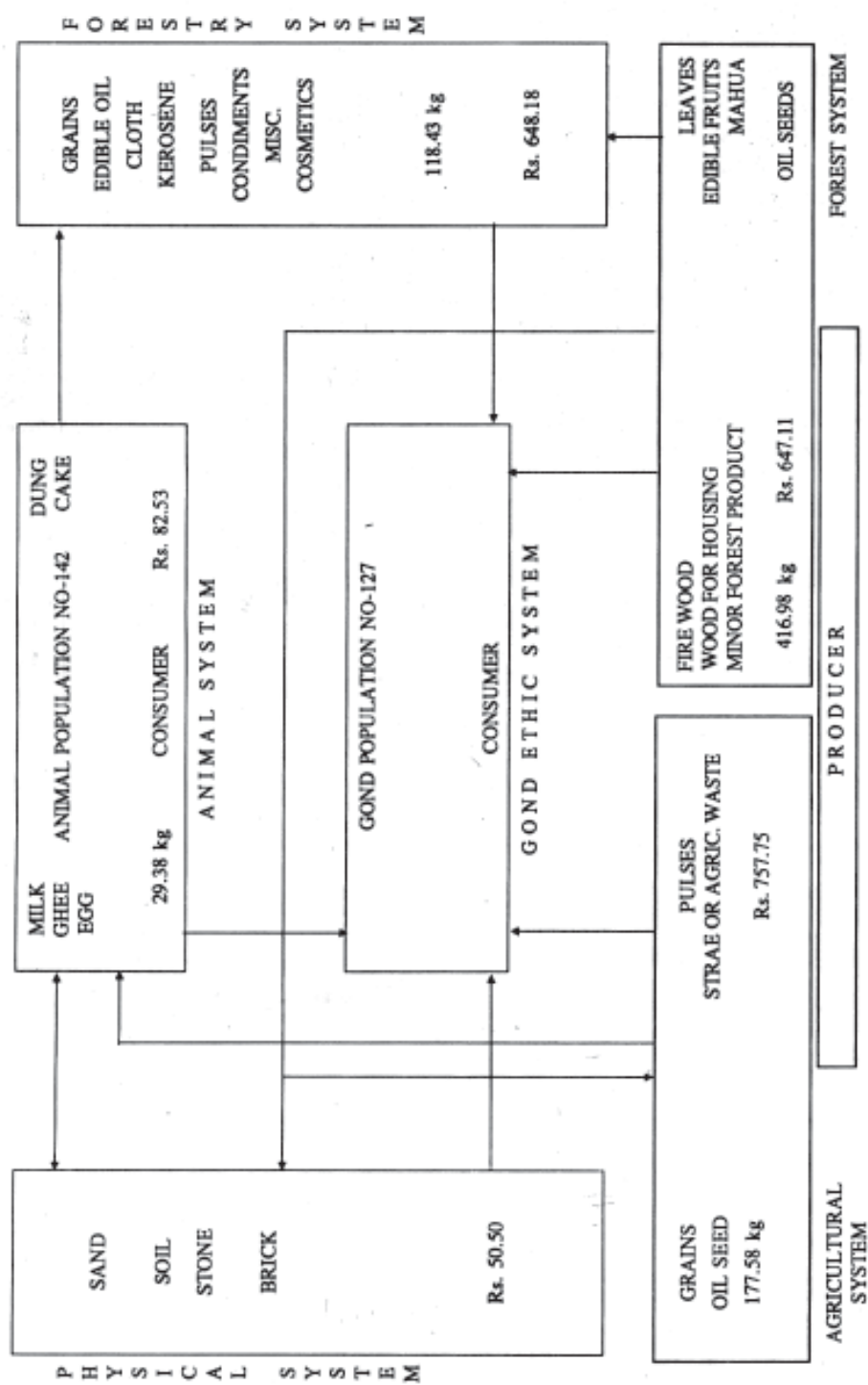


Fig. 3. Per capita material and money utilization of Gond ethnic system (based on average of six Gond villages under study).
All values are per annum basis.

changing and such forces will definitely bring about changes at a fast rate. The ethnic population shows a drift towards urban system due to the attraction for urban produce and life style. These will obviously increase demand for more and more money out of life supporting forest system. Thus increasing exploitation and utilization pressure on the forest system.

It is thus finally concluded that the status of Sidhi Gond Ethnic System shows a drift towards breakdown due to economic instability and also accelerating forest diversity devastation (Mishra, 1986) on account of increased utilization pressure and thus an ecological as well as economic crisis to the ethnic community.

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