

Assessing Forest Villagers' Role Perception and Role Performance Behaviour towards Social Development with Forest Resources in Assam

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ABSTRACT The present study to ascertain the role perception and role performance behaviour of forest villagers towards social development was conducted in Golaghat Forest Division of Assam, India. A sample size of 203 respondents was selected from all the 14 forest villages under the division by using proportionate cum random sampling technique. The study reveals that majority of the respondents had low level of role perception and role performance with respect to social development with forest resources. The study further shows that respondents' characteristics like education, caste, forest implements, economic motivation, decision making ability, scientific orientation, interest in forestry, information seeking behaviour, forestry knowledge and attitude towards forest resource conversation had positively significant relationship with their role perception and role performance in social development with forest resources.

INTRODUCTION

The North East India has 64% of the total geographical area under forest cover and it is often quoted that it continues to be a forest surplus region. However, the forest cover is rapidly disappearing from the entire region. There has been a decrease of about 1800 sq.km. in the forest cover between 1991 and 1999 (Anonymous 2003). The primary vegetation in extensive areas of the North East India has been disturbed and modified and in some places destroyed by seismic activities, frequent landslides and resultant soil erosion. While these natural causes have contributed only marginally to the change in vegetation type, human induced activities have led to irreversible transformation in the landscapes and resulted in colossal loss of biodiversity in the entire region. In North East India, the biological diversity and variability of the ecosystems are used and conserved by traditional communities through various informal institutions and using traditional ecological knowledge systems (Singh 2009). The region has witnessed excessive logging since the colonial days for revenue generation. The practice continued until the Supreme Court of India banned on logging in 1995, however clandestinely, it is done in some areas in the reserve forests.

The state of Assam in North East Region had 24.04 % forest cover out of its total geographical area of 78,438 sq.km in 2003 (Anonymous

2003). The National Forest Policy of 1988 aims at ensuing environmental stability and maintenance of ecological balance including atmospheric equilibrium which are vital for sustenance of all life forms- human, animals and plants. The unique biodiversity of North-East India has the potential to meet the basic socio-economic requirements of the people of the region. Most of the forest resources in the region are in a state of depletion and alarmingly dwindling. The state of Assam despite having with variety of valuable forest resources which forms a sound base for the socio-economic development, is facing alarming depletion of actual forest cover and its rate of denudation is among the highest in India. In most cases the top-down exclusionary approaches to protected areas have not been successful in preventing deforestation and the associated loss of forest biodiversity which has become one of the major conservation challenges facing the world today (Geist and Lambin 2002). Participation of local people in different forest management activities is much essential because, without protection and care of forest resources by local people, any attempt meant for conservation of tress and other forest resources will not be successful. Ray et al. (1996) pointed out that people's participation in a decentralized, self-help basis for conservation and rational utilization of existing forest resources as well as establishing tree cover on a degraded forest lands became urgent necessity for achiev-

ing the benefits out of it. Any forest development effort should allow people in the vicinity of the protected area or others with property rights to participate in the conservation process and to link the objectives of conservation with the local development needs of the people (Hutton and Leader-Williams 2003).

Under such circumstances, the role of the people in the vicinity of forests are of paramount importance for sustainable development of forest and thereby improving the socio-economic conditions of the people. Therefore, it is suggested that forest communities be motivated to identify themselves with the development and protection of forests from which they derive benefits (Dikshit and Kulkarni 1999). Thus, understanding the people's level of perception and performance on various role items with respect to socio-economic development with forest resources would be helpful for policy and programme formulation of forest management in the region. Considering the importance of ascertaining the level to which people in forest villages are perceiving and performing their roles with respect to social development with forest resources and determining those dominant characteristics of the people which governed their role performance behavior, the present study was undertaken with the following specific objectives.

Objectives

- i. To determine the level of role perception and role performance of the respondents in social development with proper management of forest resources.
- ii. To explore the relationship of selected characteristics of respondents with their levels of role of perception and role performance with respect to social development with forest resources.

METHODOLOGY

The study was conducted in Golaghat Forest Division of Assam, India. There were in all, 14 forest villages under the different reserved forests of the division. These forest villages were Amguri, Gamariguri Block-I, Gamariguri Block-II, Gamariguri Block-III, Gamariguri Block-IV, Gamariguri Block-V, Kachamari, Chaodang Pathar, Merapani, Tarani, Kathar, Tengani, Naojan and

Chungajan. All the 14 forest villages under the Golaghat Forest Division were considered in the present study. A total of 203 respondents which comprised of nearly 20% of the total families from each of the village were selected by using proportionate random sampling. Data collection was done through personal interview method by using pre-tested structured schedule.

There were 20 independent variables selected for the present study. These variables were classified into three groups, namely; *i. Socio-personal variables*, which comprised of age, education, main occupation, social participation, caste, family type, family size and house, *ii. Economic variables* such as annual income, material possession, operational land holding and possession of forest implements and *iii. Psychological variables* viz., localiteness-cosmopolitaness, economic motivation, decision making ability, scientific orientation, interest in forestry, information seeking behaviour, forestry knowledge and attitude towards forest resource conservation. The variables namely; age, education, main occupation, social participation, caste, family type, family size, house and material possession were measured with the help of the scales developed by Trivedi and Pareek (1964) with little modification. Economic variables- annual income, operational land holding and possession of forest implements were measured with the help of schedules structured for the study. Psychological scales developed by Singha (1991) were used to measure the variables such as economic motivation, decision making ability and scientific orientation with slight modification. The other independent variables viz; localiteness-cosmopolitaness, interest in forestry, information seeking behaviour, forestry knowledge and attitude towards forest resource conservation were measured by using structured schedules.

In order to investigate role perception and role performance variables of the respondents with respect to social development through forest resources, scales were constructed consisting of 12 role items. The scales after pre-testing were administered to the intended respondents and asked them to indicate their perceptions against each role item on a 3-point continuum such as "Very important (IV)", "Important (I)" and "Not Important (NI)" with scores 2, 1 and 0 respectively. The role perception score of an individual was obtained by adding the scores of

the corresponding responses for all the listed roles. On the basis of the scores obtained, the respondents were classified into 3 (three) categories by using cumulative cube-root ($3 \sqrt{F}$) method.

To measure the role performance of the forest villagers, role performance schedule was prepared. The role items selected for the role perception were included in the role performance schedule. The performance of the focal role incumbents by the respondents was measured with the help of a 3-point continuum as "Often (O)", "Seldom (S)" and "never (N)" with scores 2, 1 and 0 respectively. The data collection and classification of respondents were made by using the same procedure and method as used in case of role perception.

RESULTS AND DISCUSSION

It appears from Table 1 that majority of the respondents had low perception (88.17%) and performance (82.27%) levels of roles in relation to social development with the help of forest resources. This was followed by medium levels of role perception (9.36%) and role performance (14.78%) in relation to social development. Only a few respondents had shown their perception and performance of social development roles in high levels i.e. 2.47 % and 2.95 % respectively. The table also shows that the overall role performance level of the respondents was less than role perception as is evident from the corresponding mean scores of 7.82 and 12.91 respectively. The respective c.v. values of 20.81% and 32.17 % indicates that there was higher degree of variability among the respondents in relation to the level of performance compared to role perception.

The data presented in Table 2 reveal that out of 12 specific role items related to social devel-

opment, making restrictions against encroachment and checking of infiltration by outsiders in the forest areas was perceived as the most important role item by the respondents as evident by the highest mean score (1.53) which ranked first. The other specific role items with mean score above 1 (one) were attending actively in the meeting or discussions related to the welfare and development of forest villagers, extending helps and cooperation with all inhabitants of the village forest activities, taking part in decision making with regard to the planning and execution of forest management activities, making decisions of whether to plant trees or other crops on the basis of their relative profitability and resists from older pattern of behaviour like illegal felling, destructive grazing, etc. in forest area respectively. These role items, on an average, ranged from important to very important and were ranked in descending order.

With regard to role performance, only two specific role items namely, extending helps and cooperation with all inhabitants of the village in forest activities, making decisions about whether to plant tree or other crops on the basis of the relative profitability were performed either in often or seldom by the respondent as shown by the mean scores of 1.22 and 1.08 respectively. The other specific role item that were shown relatively higher performance by the respondents were planting different plant species in their own lands, attending meeting/ decision related to the welfare and development of forest village, involves in protection measures of forest resources such as digging, planting, fencing etc. and making restrictions against encroachment and checking of infiltration by outsiders in the forest areas. The mean scores of these role items range from 0.68 to 0.95 and these role items of social development could be considered having relatively high performance by the respondents

Table 1: Frequency and percentage distribution of respondents according to their level of role of perception and role performance in social development

Role Activity	Category	ScoreRange	Frequency (F)	Percentage (%)	Mean	S.D	C.V
Role perception	Low perception	8-16	179	88.17	12.91	2.69	20.81
	Medium perception	16-22	19	9.36			
	High perception	22-26	5	2.47			
Role performance	Low performance	4-10	167	82.27	7.82	2.51	32.17
	Medium performance	10-16	30	14.78			
	High performance	16-20	6	2.95			

Table 2: Rank order of different role items for social development according to perception and performance by the respondents

S.No.	Role items	Role perception			Role performance		
		Total score	Mean score	Rank	Total score	Mean score	rank
1.	Attending actively the meetings/discussion related to the welfare and development of forest villages.	300	1.48	II	184	0.91	IV
2.	Taking part in decision making with regard to the planning and execution of forest management activities.	284	1.40	IV	86	0.42	IX
3.	Planting different plant species in their own lands	201	0.99	VII	193	0.95	III
4.	Extending helps and co-operation with all inhabitants of the village in forest activities	288	1.42	III	248	1.22	I
5.	Resist from older pattern of behavior like illegal feeling, destructive grazing, etc in forest areas.	254	1.25	VI	64	0.31	XI
6.	Involve in protection measures of forest resources such as digging, planting fencing, etc.	153	0.75	IX	139	0.68	V
7.	Planting of trees along the field boundaries, road side, canal banks, etc.	177	0.87	VIII	103	0.51	VII
8.	Bringing the attention of the concerned authority on the most important problems of forest management in the area for their control measures.	133	0.66	X	41	0.20	XII
9.	Seeking helps and assistance from the forest department for suitable tree species and technical guidance for their plantation	106	0.52	XII	65	0.32	X
10.	Making decisions about whether to plant tree or other crops on the basis of their relative profitability	282	1.39	V	220	1.08	II
11.	Removal of debris and proper alignment of roads in the area.	132	0.65	XI	98	0.48	VIII
12.	Making restrictions against encroachment and checking of infiltration by outsiders in the forest areas.	311	1.53	I	138	0.68	VI

in forest villages. It is, therefore, important to emphasis on these specific role items by the concerned authority while making proper programme planning and strategy for social development in forest areas. Attempts should also be made to convert those role items having rela-

tively lower perceptions by the respondents into role performance, which in turn, would help the people to improve their socio-economic standard in forest villages. The people of the North Eastern states including Assam have managed biodiversity with their traditional wisdom. Influx

of populations from the neighbouring states and countries, mostly labourers has scant regard for the local sentiments and values. In addition, the exposure to western cultures and new education system have changed lifestyles affecting the forest resources and its sustenance.

Relationship of Independent Variables with Role Perception and Role Performance

Simple correlation analysis was done to study the relationship between independent variables and dependent variable. The results are shown in Table 3. From the table, it can be seen that the independent variables such as education, caste, forest implements, economic motivation, decision making ability, scientific orientation, interest in forestry, information seeking behaviour, forestry knowledge and attitude towards forest resource conservation had shown positively significant 'r' values in both roles perception and role performance. This implies that higher the level of these variables of the respondents, higher will be the level of their role perception and role performance of forest resource with respect to social development. In addition, three variables namely, house, annual

income and localiteness-cosmopoliteness and three variables-age, family size and family type of the respondents had also shown positively significant association with the role perception and role performance respectively. The findings are in conformity with that of Paul M. Muthiga (2008) with respect to age, education, social participation, farm size etc. towards respondents' perception forest management dimensions. It could be argued that respondents who belonged to social group participation could have used the groups as avenues for lobbying for more participation in making conservation decisions and resolving conflicts. Gaining understanding on different role items could shed light on what the local people consider important and hence, guide on the general areas that require interventions.

CONCLUSION

The results of the study provided with good understanding of the general perception and performance of the local communities towards different role items with respect to social development with proper management of forest resources. The findings also revealed that al-

Table 3: Simple correlation analysis of independent variables with role perception and role performance of respondents towards social development through forest resources

S. No.	Independent variables	Role perception		Role performance	
		'r' value	't' value	'r' value	't' value
1	Age	0.034	0.483	0.295	4.383**
2	Education	0.271	3.994**	0.290	4.300**
3	Main occupation	0.040	0.568	0.003	0.042
4	Social participation	0.106	1.513	0.112	1.599
5	Caste	0.306	4.556**	0.322	4.825**
6	Family type	0.133	1.902	0.257	3.775**
7	Family size	0.119	1.700	0.146	2.094*
8	House	0.241	3.522**	0.120	-1.714
9	Annual income	0.197	2.849*	0.122	1.743
10	Material possession	0.091	1.296	0.109	1.556
11	Operational land holding	0.051	0.724	0.097	1.383
12	Forest implements	0.363	5.527**	0.359	5.455**
13	Localiteness cosmopoliteness	0.186	2.685*	0.019	0.269
14	Economic motivation	0.202	2.925*	0.312	4.660**
15	Decision making ability	0.363	5.527**	0.385	5.919**
16	Scientific orientation	0.307	4.576**	0.306	4.561**
17	Interest in forestry	0.331	4.976**	0.511	8.433**
18	Information seeking behavior	0.472	7.595**	0.418	6.526**
19	Forestry knowledge	0.229	3.336**	0.231	3.369**
20	Attitude towards forest resource conservation	0.108	1.541	0.176	2.535*

*Significant at 0.05 level of probability

**Significant at 0.01 level of probability

though people, by and large, perceived those specific role items as important to very important, there was a wide gap between role perception and role performance. Lack of well organized social and economic institutions in forest villages and lack of mass efforts with target oriented departmental initiatives were among the notable causal factors responsible for wide gap between perception and performance of the role items related to social development in forest villages. Priority should be given for consideration while planning developmental programmes and policies to those individual characteristics which had shown significant relationship with role perception and role performance on different role items related to social development in the forest areas.

RECOMMENDATIONS

The forest management ought to widen opportunity for community participation decision making process in forest management activities. Therefore, measures for protection of forest resources may be emphasized not only at the individual level but also at the community level. Local youth clubs, panchayats and other village organizations may be involved for this purpose. The fact that the NGO movement has been gaining ground and the collective strength of the NGOs could be treated as an opportunity. The collective impact of the NGOs will certainly lead to better understanding of biodiversity and preservation of natural resources of the states of North East. Many of the states' Protected Areas have been declared on the basis of baseline information collected by research institutes and

have not taken into account the priorities, values, rights/ownership and management systems of local communities into account. Forestry personnel, particularly the Forest Extension Workers, have a major role to play in informing, educating and motivating the local communities to protect and maintain forest resources in forest villages through concerted efforts.

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