RESEARCH ARTICLE

AWARENESS AND INVOLVEMENT OF PEOPLE IN CONSERVATION ACTIVITIES OF WESTERN GHATS OF KARNATAKA, INDIA

Annapurna C. Pujar and Rajeshwari N.*

Department of Extension Communication and Management, College of Rural Home Science , UAS, Dharwad, Karnataka
Department of Natural Resource Management, College of Forestry, Sirsi, UAS, Dharwad
Email : rajeshwarinavaneeth@gmail.com

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Abstract: The Uttara Kannada (U.K) district being a bio-diversity hotspot and 80 percent of its area forested, need to be conserved by creating awareness regarding conservation among the forest dwellers. Thus there is a growing need for concentrated efforts on making people of U.K. district aware about forest conservation, involving them in protecting the forest and communicating to others about conserving the Western Ghats. Hence, in the present paper an effort is made to study the awareness level, involvement of people in forest conservation and their socio economic correlates. The results revealed that majority of the respondents were on medium level of awareness with a awareness index of 86.33 and more than eighty percent were involved in forest conservation activities and the major conservation activities were regeneration, plantation and fire control along with replacement of non conventional energy resources with fossil fuels.

Keywords: Betta lands, Conservation, Awareness, Conservation activities

INTRODUCTION

Ancient Indian culture, religion and folklore are linked to forest. Indian people worshipped trees and sages meditated under them. Wild life was dear to holy men and wild animals live around them. Our epics like Mahabharata and Ramayana are based on episodes in forest and our sage composed music in ashrams in forests. The total geographical area of India is 32, 88,000 Km2 of their 7, 47,800 Km2 (22.74 %) was occupied by forest at the time of independence. At present the total forest and tree cover is 7,01,673 Km2, (21.34 %) according to India State of Forest Report(2015).The propose area under forest in Forest Policy of 1988 is 33% of the total geographical area.

Human beings have always had impact on the environment. However, during the past two centuries and more particularly in the past 50 years economic activity has increased. Majority of the deforestation has occurred during the British Government as well as early years of Independence that include the time period of 1880-1960.The forest policy of the British government, significant emphasis was given to generate maximum revenue through timber cultivation as well as permanent agricultural crops rather than forest sustainability in India. However, in the recent past there has been growing awareness about increasing the forest cover by all the stakeholders who directly or indirectly depend on the forests. Many movements like Chipko movement in the Kumaon region, Appiko movement in Uttara Kannada district and Silent Valley revolution prove that importance of forest is better understood by the common man now.

The Uttara Kannada(U.K) district being a bio-diversity hotspot and 80 percent of its area forested, need to be conserved by creating awareness regarding conservation among the forest dwellers. Thus there is a growing need for concentrated efforts on making people of U.K. district aware about forest conservation, involving them in protecting the forest and communicating to others about conserving the Western Ghats. Hence, in the present paper an effort is made to study the awareness level, involvement of people in forest conservation and their socio economic correlates.

Therefore, the present study was conducted with the following objectives.

1. To study the awareness and involvement of people about conservation of Western Ghat.
2. To study the relationship between the personal and socio-economic characteristics of the respondents and awareness level.

MATERIAL AND METHOD

The study was conducted in 2014-15 at Uttara Kannada district situated in Central Western Ghats which is revered as one of the bio- diversity hotspots of the world. The Uttara Kannada district comprises of 11 taluks including all types of vegetation with a forest cover of 8,14,455 hectares . Three hundred respondents from all the 11 talukas were selected through simple random sampling technique across the district which formed the sample of the study. The data was collected with the help of a semi - structured interview schedule and focussed group discussions. The statistical tests for analysing the data such as Mean, Standard Deviation, Percentage, t- test, Pearson's Product Moment Correlation tests were applied

*Corresponding Author

RESULT AND DISCUSSION

Forests form one of the largest and compact natural resource which is exploited for both economical and ecological services. Increase in deforestation worldwide has resulted in sensitive issues like climate change and food security. The study which has been carried out in all the taluks of Uttara Kannada district throws light on awareness level of respondents on forest conservation. To study the awareness level a scale was developed on four point continuums after checking its relevancy with the help of experts in the concerned field. The final scores were used to categorise the respondents in to High, low and Medium level category based on the mean scores and standard deviation. The results about the awareness is depicted in the table 1

Awareness about forest Conservation

The awareness about forest conservation of the respondents was studied and it was found that 86.33 per cent of the farmers were having medium awareness about Western Ghat conservation followed by low awareness (10.00 per cent) and high awareness (3.67 per cent).

Table 1. Awareness of respondents about western ghat conservation N = 300

Categories	Number	Percentages
High $\geq$ 41.735	11	3.67
Medium (22.026 – 41.734)	259	86.33
Low $\leq$ 22.025	30	10.00

X = 31.88 SD = 9.855 X± S.D.

This indicates that maximum numbers of respondents are aware about forest conservation. The possible reason could be that most of the respondents resided in the interiors of forest and were mainly dependent on adjoining forest for fuel wood, fodder ,Non Timber Forest products and leaf litter. From many generations they were using the forest as an important natural resource for their day today needs and at the same time were involved in conservation for sustainable use. The main conservation activity undertaken was planting seedlings, use of bio gas as a non conventional energy source and Stall feeding of exotic breeds etc.

Activities detrimental to the forest like dam construction mining, lopping, poaching, illegal logging are discouraged and immediately reported to concerned authorities mainly the Forest Department. Forest fires were also reported to the Department of Forest. The respondents were very unhappy about the Kaiga – Narendra power line and dam constructed across the Kali river. The results comply with findings of Singh *et al*. (2005).

The semi focussed interviews have revealed the displeasure of respondents over developmental activities. Majority of the respondents have developed a close intimacy with the forests because the forest dwelling communities have been there from three to four generations and relate their day today activities with the forests. Monoculture plantations are other woes which have added fuel to the fire because indigenous and endemic diverse species are lost forever; The forest is always seen only as a commercial entity by the outside world which is not accepted by the communities living in the forest areas. Indicator species like tigers are almost nonexistent now. Leopards are found here and there in deep forests. Veteran respondents expressed that modern mans greed, expansion of areca gardens and material economy is depleting the forest at a faster rate and efforts have to be made by the younger generation. These views can be supported by a study conducted by Nimish Kapoor 2011.

Involvement in Forest Conservation Activities

Table 2. Involvement of respondents in forest conservation N= 300

Sl. No.	**Particulars**	**No. of Respondents**	**Percentage**
1	**Involvement in forest conservation activities**		
	Yes	247	82.67
	No	53	17.67
2	**Conservation Activities carried out in**		
	Minor Forest	230	76.77
	Betta land (Hill adjacent to the valley)	175	58.33
3	**Type of Activities**		
	Fire Control	254	89.67
	Plantation	239	79.67
	Prevention of poaching and illegal felling of trees	199	66.33
	Joint Forest Planning and Management Activities(Active Village Forest Committees)	200	66.66
4	**Conservation activities at household level**		

	Use of non conventional energy sources like Solar energy, ASTRA chulla and Bio gas	120	40
	Slurry as alternate to green leaves for farms	203	67.66
	Rearing exotic varieties, Stall feeding to reduce pressure in grass lands	134	44.66
	Cultivation of Fodder crops	10	3.33
	Maintaining a medicinal plant garden	52	17.33
	Planting trees in Betta land	242	80.66

From the table 2, it is evident that 82.67 per cent of the respondents were involved in forest conservation activities, as these respondents were living in forest from past many generations they expressed that it was their duty to conserve the forests. The day today needs like fuel wood, fodder, small timber and Non Timber Forest Products of the respondents were mainly met by the resources obtained from the forest. Seventy six percent of the respondents carried conservation activity in minor forest and and about sixty percent in Betta land. Most of the respondents in the study area are plantation holders with small sized holdings. However, they have been depending on betta lands for fodder and manure. They are all dependent on forest for their daily requirement such as fuel wood, soil, leaves to mulch the arecanut garden for manuring, wood to boil arecanut etc. Wild pickle mango, *Garcinia indica* (Murugalu fruits), *Garcinia gummigatta* (uppage), nutmeg and cinnamon leaves are collected for household consumption and sale in the local market. They invariably plant seedlings, resist poaching and illicit felling apart from preventing forest fire.

Cultivators of Western ghat region of Karnataka are enjoying a unique forest privileges from the colonial period. The foremost is Soppina betta(Hill) privileges enjoyed by areca nut cultivators of Uttar Kannada district whereby, each cultivator has exclusive access to approximately 9 acres of forest for every one acre of the arecanut orchard he owns at the time of the creation of the privileges during British period. Therefore the betta land owners are utilizing the forest to a greater extent They also protect this land by fencing, planting new saplings, rotational lopping of leaves etc. But still the betta lands are degraded due to inappropriate utilization.

The forest dwellers are very much interested in conserving their surrounding minor forest and betta forest. Village Forest Committee under the Joint Forest Planning and Management Programme and other forestry extension activities are the important activities in which respondents were involved which included regeneration of degraded land, management of plantations and establishment of nurseries.

At the household level the respondents are involved in Use of non conventional energy sources like Solar energy, ASTRA chulla and Bio gas, Slurry as alternate to green leaves for farms, Rearing Exotic varieties, Stall feeding to reduce pressure in grass lands, Cultivation of Fodder crops Maintaining a medicinal plant garden Planting trees in Bettaland

Correlation between Awareness and personal and socio-economics characteristics of respondents

The correlation between awareness of the respondents with their personal and socio-economic characteristics was studies and are results the presented in Table 3. From the table, it could be seen that except age, all other variables education, total family income, social participation, mass media participation, extension contact, land holding are positively and significantly (significant at 1% level) are related with awareness the age is negatively related with awareness (significant at 5% level)

Table 3. Correlation between awareness and personal and socio-economic characteristics of the respondents

Sl. No.	**Independent Variables**	**'r' value**
1	Age	- 0.0761*
2	Education	0.3307**
3	Total Family income	0.2367**
4	Social Participation	0.3655**
5	Mass-media participation	0.4919**
6	Extension participation	0.4349**
7	Extension contact	0.6449**
8	Land Holding	0.2151**

* Significant at 5% level ** Significant at 1% level

Age and Awareness

The correlation results revealed that age is negatively resulted with awareness of the respondents (significant at 5 per cent level). This shows that as the age increases the awareness decreases. It may be due to the reason that, from the study it could be observed that 43.33 per cent of the respondents belong to old age group (nearly half of the respondents) the older generation are not much bothered about environmental issues.,

Education and Awareness

It was found that there is a positive and significant relation between education and awareness about forest conservation by the respondents. It is always true that education is the single and ultimate weapon to solve most of the social problems. Since it creates awareness at the initial stage, motivates the person to think and collect the information about his surroundings. Hence in the study also education might have influenced the respondents to gather information from different sources like literature, radio, television, newspaper etc. and moreover the respondents living with the forest Which might have made them to be aware about the issues related with forest conservation.

Total Family Income and Awareness

In the present study analysis of the data has shown that there is a positive relationship between family income and awareness. This is due to when there is high income naturally one can have information accessibility from different sources like mass media, cosmopolite contacts etc usually people with high income and education have tendency to seek new information. In the interior forest the arecanut growers are having high income and also very much aware about their surrounding forest area.

Social participation and Awareness

From the results it could be observed that there is positive correlation (0.3655) between social participation and awareness about forest conservation. It indicates that when social participation increases the awareness about forest conservation also increases. It may be due to the reason that whenever a person participates in social activities and social organizations they will get more knowledge on, which might have increased awareness about forest conservation.

Mass-Media Participation and Awareness

The correlation between awareness and mass-media participation showed that there is a positive correlation (0.4919) between these two variables. It again indicates that as we expose to mass media we can accumulate lot of information about general issues and also about our surroundings which increases the awareness about day today happenings. The mass-media such as Radio, T.V., Newspaper, Magazines play a very important role in improving the knowledge about general issues. Therefore the results shows that as mass-media participation increase the awareness about forest conservation also increased.

Extension participation and awareness

The results shows that there is a positive relation between extension participation and awareness about forest conservation. It might be due to participation in different activities such as trainings, workshops, study tours etc. might have helped to increase the outside knowledge, exchange of information which is of non-formal education makes a person to be aware about most of the things related to a person and his surroundings.

Extension Contact and Awareness

The awareness about forest conservation of the respondents was positively (0.6449) correlated with extension contacts. It might be due to the contact of respondents with RFO, AAO's AHO's and officers of other Developmental Departments made the respondents to be aware about forest and also there officers continuously providing needed information about forest which might have resulted in positive correlation with awareness of forest conservation.

Land holding and awareness

From the results, it is clear that land holding is positively correlated with awareness i.e. as land holding increases the awareness also increases. This may be due to the reason that, the farmers of Uttar Kannada district mainly dependent on forest for green leaves and dry leaves, soil, fuel wood on Sopina betta land and minor forest. Hence, they are growing arecanut. Due to increased pressure on forest for these inputs they are observing that the forest is degrading. It is reinforcing them to think about future problem which is resulted in increase awareness about forest conservation.

Therefore all the independent variables except age all other variables showed positive correlation with awareness about forest conservation.

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