

Functional Attributes of Tribal People of Western Himalaya: Need for Indigenous Knowledge Based Sustainable Planning

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ABSTRACT Since the dawn of civilization, both sexes have played a significant role in the evaluation of mankind. In the tribal society of western Himalaya, people have been playing an integrated role in terms of ecosystem functioning. Nonetheless, women have been playing a key role in the upliftment of social, cultural, economic and political values since age-old in the mountainous region. The distinct allocation of activities of men and women has evolved locally for productive and functional usages and it has been inheriting since generations. The status of both sexes is exclusively dependent up on functional attributes of the people concerned. However, the position of women in the study area is, by and large, equal to men; women work 14-16 hours a day and enjoy their life. They never feel bore in harsh and inhospitable geo-climatic conditions but they have molded themselves to contribute optimally through conducive functioning at different subsystem levels. Lack of developmental policies and programmes focusing on cultural domain and centering around agriculture-animal-forest-domestic based interactive subsystems/sectors are endangering the indigenous society of the region. Therefore, developmental approach should be centered on interactive subsystem levels derived from indigenous knowledge oriented packages rather than introduced alien packages.

INTRODUCTION

The Himalaya is a vast mountain system extending into eight developing counties in south Asian region covering Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal and Pakistan. Although, it covers only 18 per cent of India's geographical area, the Himalaya accounts for more than 50 per cent of the country's forest cover and 40 per cent of the species endemic to Indian subcontinent and about 51 million people located in this area. Geo-graphically, the entire region is divided into eastern, central and western Himalayas, each one of these having rich social, cultural and natural diversity. Of the total area, the western Himalaya is about 1.7 per cent of the country's area and nearly 11 per cent of the Himalayan landmass, harbouring 92.4 per cent people in villages derived their livelihood from subsistence animal-farm-forest-based resources. Like other parts of the Himalayan region (Ramakrishnan, 1992; Rao and Saxena, 1994), western Himalaya, in general, is characterized by inaccessibility, fragility, marginality, landscape heterogeneity, geo-climatic variability coupled with social, cultural, economic and political diversity. In such diverse conditions, the traditional people have developed dynamic ways of living. During the process of civilization, people have mainly concerned with productive interactions

with nature that surrounds him to ensure a comfortable existence. In this process, men and women have acquired expertise in different fields for a variety of works. For instance, women traditionally have been more skilled in domestic chores and sedentary activities while men have usually got more expertise to engage strenuous work.

The status of different sexes varies from society to society and place to place depending upon culture, customs and traditions, in which they born and brought up (Singh, 1997). Though enough literatures are available focussing to the importance of Indian women (Sen Gupta, 1969; Desai and Krishnaraj, 1987; Ghosh, 1984; Sahai, 1985; Pokhriyal, 1985; Biswas, 1990; Samal, 1993) yet, the information regarding the role of tribal people in western Himalaya region is lacking in terms of functioning at different subsystems levels. Therefore, the objective of this paper is to analyze the work participation and functional attributes of tribal men and women operating at different sub-systems in indigenous society of Kinnaur district of western Himalaya.

MATERIAL AND METHODS

The present study has been conducted in Baspa/Sangla valley that is located in high altitude areas falling in Sangla tehsil of Kinnaur district

in the state of Himachal Pradesh lying in western Himalaya. After reconnaissance of the valley, three villages namely Batseri/Bosering, Rakchham and Chhitkul located at different elevations, representing all characteristics of the valley were selected for detail survey. Equal representation was given to each village and a total of 75 per cent families were selected and interviewed randomly. A participatory rapid appraisal approach was used to fill up the questionnaires. The questionnaire was designed with the help of the local people after individual and group discussion and subsequently it was tested in the field. All information pertaining to the involvement of men and women for varieties of works including agriculture sector, domestic chore, animal husbandry and forest based resources were collected through interview during the year 1997-98. These factors were ecologically categorised as subsystems and functional attributes of men and women related to these subsystems were recorded broadly. Heads of men and women of selected families were contacted separately while filing the questionnaires. Mean value of three villages is presented herewith. Problem for which no satisfactory solutions were found was related to children's activities. Therefore, all activities of men and women aged 12 years or more were recorded.

The people of the study areas are admixture of Indo-Aryan or Mongolian races. The inhabitants of the study area are historically known as Kinner or Kinnaura tribes. The Kinnauras are a scheduled tribe. The Kinnauras belong to different ethnic groups. Among them the Rajputs (also known as Kanet, Khas, Khasia or Khasa) are the dominant group and they are selected for detail survey. Next comes Koli- who are weavers and artisans, leather workers and ploughmen (Hali), followed by the Lohar, Bandi and Nagalu who are ironsmiths and silversmiths, carpenters and masons and basket makers respectively. The Kinnaura speak the Kinnauris dialect. At present they have Hindi as the second language. Besides, they speak Bhoti.

RESULTS AND DISCUSSION

As Table 1 enumerates that the total population of the sampled villages is 2150 confined to 350 families. The female population is relatively higher than male population which also reflects higher (1026) sex ratio (number of females per thousand males) in the study area

Table 1: Salient socio-economic profile of the study area.

Parameters	Frequency
Total households (No.)	350
Total Population (No.)	2150
Male	775
Female	797
Children (<12 years)	580
Sex ratio	1026
Literacy (%)	
Male	40
Female	24
Total	30
Livestock population (No.)	4834
Total cultivated area (ha.)	285

from the district (885) and the state (973) averages. Male literates (40%) are more as compared to female literates (24%). However, the total literacy rate (30%) is much lower than the district (36%) and the state levels (42%) (Anonymous, 1981). Poor literacy rate in the area may be due to remoteness, lack of awareness and inadequate infrastructure facilities.

Of the total work required for farming practices at agriculture subsystem level, women contribute major portion 63 per cent whereas, men share 37 per cent only (Table 2). Similarly, Acharya and Bennett (1983) in Parbatiya Bakundel have estimated that women account for 57 per cent of adult input in agriculture sector and contribute half of the household income. Arduous works like field preparation, terracing, polishing, harrowing, sowing of seeds, use of inorganic chemicals, gathering and carrying of harvested crops and storage of grains are extensively performed by men. Women generally operate simple works like weeding, carrying and spreading of organic manure in field, and harvesting and threshing of

Table 2: Work-participation rate (%) of men and women at agriculture subsystem level.

Attributes	Men	Women
Terrace repairing and clod breaking	92	8
Ploughing and harrowing	100	-
Carrying and spreading of organic manure	9	91
Use of agro-chemicals	100	-
Sowing of grains	100	-
Weeding and tilling	-	100
Harvesting of crops	17	83
Gathering and carrying of harvested crops	64	36
Thrashing of crops	23	77
Storage of grains	68	32
Total	37	63

crops. Women were traditionally skilled in terms of doing agriculture-related activities. They know simple techniques of performing efficient work within accommodative period in tuned harsh and incertitude geo-climatic conditions. Such knowledge they have accumulated since generations after multitude of trial and error and have indigenously designed code of conduct of proliferating in on-going generations. Therefore, one can articulate that women's role in agri-culture subsystems functioning are inseparable.

Table 3 reveals that about 82 per cent of the domestic sector related-activities are performed by women and remaining 18 per cent by men. Women exclusively performed washing of utensils and clothes and collection of water. Almost all (98 %) of food preparation is women's responsibility; when women are busy with other indispensable work and feeling sick then men only cook the food. Similarly, child rearing and house caring are done by women. However, both men

Table 3: Work-participation rate (%) of men and women at domestic subsystem level.

<i>Attributes</i>	<i>Men</i>	<i>Women</i>
Food preparation	2	98
Washing of utensils	-	100
Water collection	-	100
Cleaning of clothes	-	100
Child care	6	94
Groceries purchasing	67	33
Handicraft preparation	39	61
House caring	2	98
House repairing	60	40
Total	18	82

and women are generally engaged in some of the common jobs like childcare, groceries purchasing, house construction as well as repairing. Similar functioning patterns of men and women were also noted from non-tribal region of Kullu district of the state of Himachal Pradesh (Singh, 1997).

Work participation rates of men and women in animal husbandry sector are shown in Table 4. Ninety per cent of the work related to animal are undertaken by women and remaining (10%) by men. Women performed stall feeding of animals and replacement of animal's bedding/pens. Men take part in animal rearing and milking however, work responsibility of women is relatively higher (77-98 %). The culture of domestication of animal is age-old phenomenon and seems to be parallel to the history of human settle-

Table 4: Work-participation rate (%) of men and women at animal husbandry subsystem level.

<i>Attributes</i>	<i>Men</i>	<i>Women</i>
Animal rearing	23	77
Stall feeding	2	98
Milk extraction	12	88
Animal pens/bedding replacement	2	98
Total	10	90

ment and civilization. Rearing of animal has the indispensable impact on livelihood of the marginal people in terms of providing valuable resources and value added products such as milk, butter, curd, meat, wool and woolen items and dung. Indigenous knowledge pertaining to derive value-based products is very appreciating amongst women. Embroidery work, weaving and knitting of woolen items are some unique examples of handicrafts. In due course of time, handicraft industry has developed its root in day-to-day life of the people and ultimately the industry has become an inherited occupation. Some of the handicraft items of western Himalaya have been discussed by Singh et al. (1996), and Singh (2001) elsewhere.

The collection of forest-based resources like leaf litter, fuel wood, fodder and non-timber produce especially medicinal herbs, women allocate 80 per cent of their work time while remaining task (20%) are performed by men (Table 5). Men are relatively more engaged in seasonal collection of minor forest produce particularly medicinal herbs. Collection of medicinal plants and some wild edibles like mushrooms requires strenuous and courageous work from inhospitable areas of the forest. Since most of the forest-based resources are gathered by women therefore, they are rich in terms of associated indigenous knowledge (Singh et al., 1996). That is why they maintain a symbiotic relationship with natural resources. If forests are therefore destroyed there are also destruction of relevant knowledge that women have empirically

Table 5: Work-participation rate (%) of men and women at forest subsystem level.

<i>Attributes</i>	<i>Men</i>	<i>Women</i>
Litter collection	10	90
Fodder collection	10	90
Fuel wood collection	29	71
Non-timber forest product collection	62	38
Total	20	80

been gathering since generations (Singh, 1999, 2000).

Of the total involvement amongst the four subsystems levels, women performed about 80 per cent of the work whereas men 20 per cent (Table 6). Further out of the total, the major work (41%) is involved in agriculture subsystem followed by domestic (22%), animal husbandry (19%) and forest subsystems (18%). On an average, women performed 15-16 hours of work per day, while men work hardly 3-4 hours per day. During the peak season of the works at the time of crop sowing and harvesting, collection of forest based leaf litter for animal's bedding and

Table 6: Work participation rate (%) of men and women at different subsystem levels.

<i>Ecological systems</i>	<i>Men</i>	<i>Women</i>
Agriculture subsystem	9	32
Domestic subsystem	2	20
Animal husbandry subsystem	5	13
Forest subsystem	4	15
Total	20	80

preparation of organic manure by mixing animal excreta, gathering of fuel wood for winter season, women often work even up to 15-19 hours per day. The climate in the area is unpredictable and most of the work has to be finished within limited time. Bhandari (1991) claimed that women in the hills have a work schedule stretching between 12 to 19 hours a day, where they carry out two day's work in single day, attending agricultural activities, cattle rearing, collection of fuel wood and fodder, rather all in addition to normal duties at home. However, it has been noted that working 14-16 hours per day is routine phenomenon. Enrich's (1980) field work in Kangra district of

Himachal Pradesh, noted that fuel wood and water collection acquired 55 per cent of women's time.

Documentation of socio-cultural activities of men and women highlights the importance and status of both sexes in concerned society (Table 7). In relation to men, women actively participate (100 %) in fair and festivals, taking independent decision of marriage (60%), believes in participatory way of natural resource use and management techniques and participatory sharing of works (98-100 %). Organizing frequent fair and festivals is one of the ways of their enjoyment since age-old. The status of women is dependent on nature of function in tuned social setup. In prevailing social, cultural, economic and political affairs, women are relatively more skilled in term of their functioning. Therefore, the tribal women enjoy considerable freedom of movement compared to their non-tribal counterpart (Singh, 1997). Women have full right and freedom to do whatsoever they wish. Women's status and authority are, by and large, equal to men.

People-agriculture-animal-forest interactive functioning is unique in Himalaya region. (Ives and Messerli, 1989; Ramakrishnan, 1992; Rao and Saxena, 1994; Singh et al., 1997). In the study area too, this clearly indicates that four subsystems like agriculture, animal husbandry, domestic and forest subsystems are inevitably interwoven characterizing interactive ecosystem functioning. Fast growth of commercialization of minor forest produce, introduction of market-oriented high yielding varieties of food and fruit crops, men dominated ideology and technology, introduction of infrastructure, new approaches of socio-cultural development and impact of globalization are some serious cause of widening gaps

Table 7: Some socio-cultural initiatives (% response) of men and women (values given in parentheses).

<i>Attributes</i>	<i>Yes</i>	<i>No</i>	<i>No response</i>
Participation in fair and festivals	58 (100)	36 (-)	6 (-)
Knowledge of medicinal plants and curing illness	46 (36)	32 (44)	22 (20)
Initiative in community work	70 (98)	22 (2)	8 (-)
Independent marriage initiatives	54 (60)	30 (25)	16 (15)
Entrepreneur quality	48 (65)	30 (25)	22 (10)
Practice of polyandry system	28 (30)	26 (25)	46 (45)
Participation in Mahila Mangal Dal activities	4 (80)	96 (15)	- (5)
Participation in local deity function	100 (100)	- (-)	- (-)
Believe in local knowledge system	96 (100)	2 (-)	22 (-)
Believes in indigenous resource management systems	94 (98)	- (-)	6 (2)
Believes in independent decision making process	64 (72)	14 (10)	32 (18)
Practicing participatory resource sharing	100 (100)	- (-)	- (-)

at subsystem levels. As Table 8 displays, people seek that developmental interventions should be centered on need-based focussing at subsystem levels. Such develop-mental programmes certainly enhance the sustainability of the area/people. As majority of men and women responded that agriculture-animal-forest-domestic based parameters needs to be strengthen on priority basis. These resource based practices are the major source of economy in the area since generations. Eighty to 96 % men and women respectively reported that emphasis should be given to local crops and farming practices. Further they have highlighted (90-100 % response) for the promotion of local animals that are 100 % tuned for local geo-climate/environment. Majority (100%) feel that development policies should be focused on community participation. Restoration of forest based resources and degraded land should be initiated as 94-100 % people have reported.

In conclusion, one can certainly portray that women in the hills, in general, spend more of their

time in productive work in integrated manner than the women in the plains. The functional aspects of men and women are inseparable at four subsystem levels and it is highly interactive. Thus, the tribal people in the mountainous region play an integrated role in terms of different ecosystem sustainability. The distinct distribution of work of men and women has evolved locally in relation to productive and functional use and it has been interacting since generations. Any kind of alteration at subsystem levels may not only hamper the functional attributes of men and women but also imperials cultural sustainability. Social and cultural domain is dragging indigenous system on the brink of cultural pollution. Thus, plans focusing on participatory development polities and pro-programmes are required to upgrade the status of tribal women in western Himalaya. Therefore, as per local response, development plans should be focussed to four subsystem levels (c.f. Table 8) and should scientifically be derived from indigenous knowledge-based packages (Singh and Ram, 1997).

Table 8: Developmental options (% response) of men and women (values given in parentheses) at different subsystems level in the study area.

Parameters	Yes	No	No response
<i>Agriculture Subsystem</i>			
Emphasis to grow traditional crops	80 (92)	18 (2)	2 (6)
Emphasis to grow modern/cash crops	72 (60)	22 (20)	6 (20)
Cultivation of both traditional and modern crops	82 (86)	10 (6)	8 (8)
Emphasis to grow local crops derived from modern	90 (96)	4 (-)	6 (4)
Prefer the use of agro-chemicals	28 (20)	70 (66)	2 (14)
Prefer to grow fruit producing trees	50 (36)	34 (38)	16 (26)
Development/preference of agro-forestry system	80 (92)	12 (4)	8 (4)
<i>Animal Husbandry Subsystem</i>			
Preference of locally domesticated animal	90 (98)	6 (-)	4 (2)
Preference of jersey variety	48 (36)	40 (42)	12 (22)
Preference of jersey and local varieties	42 (40)	40 (40)	18 (20)
Preference of breed of jersey with local varieties	40 (40)	44 (40)	16 (20)
Preference of breed of Yak	94 (98)	- (-)	6 (2)
Preference of animal wants more feed/fodder	6(-)	92 (96)	2 (4)
Preference of animal want less feed/fodder	94 (96)	- (-)	6 (4)
Preference of animal which adopt to local geo-climatic condition	100 (100)	- (-)	- (-)
<i>Domestic Subsystem</i>			
Need of energy efficient chullahs	98 (100)	- (-)	2 (-)
Need of water availability near settlement	100 (100)	- (-)	- (-)
Availability of timber of house construction	100 (100)	- (-)	- (-)
Easy availability of market facilities	96 (98)	- (-)	4 (2)
Occurrence of public distribution system	100 (100)	- (-)	- (-)
Participation in community based development planning	100 (100)	- (-)	- (-)
Need of cooperatives	80 (60)	6 (2)	14 (38)
<i>Forest Subsystem</i>			
Preference of cultivation of medicinal plants	40 (32)	30 (26)	30 (42)
Preference of plantation of degraded lands	44 (28)	8 (10)	48 (62)
Maintenance/development of community land	94 (98)	- (-)	6 (2)
Development of pasture /grazing land	96 (100)	- (-)	4 (-)

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