

Tribal Livelihood Status in Western Ghats

Basavarajaiah DM*, Narasimhamurthy B, Bharathi M, Jaya Naik

Karnataka Veterinary Animal and Fisheries Sciences University, Bidar, India

ABSTRACT

Indian tribes' also known as aboriginal communities or adivasi are residing in forests since time immemorial. There are nearly 10.40 million tribal people residing on 15 percent of total Indian geography and constitutes 8.60 percent of the total population. Forest and tribals are culturally and traditionally linked to each other. Most of them live in close proximity of forest depending on the forest for livelihood and substances. In spite of pursuing rapid economic growth for more than five decades India since Independence, the objective of poverty eradication has not been significantly achieved. The prevailing situation of hunger, poverty and deprivation experienced by Western Ghats tribals as well as general population, the confronting historical and economic data perspective shows that development strategy that has been persuaded post-independence has not been effective. The issues of livelihood are predominantly addressed in economical, political and pragmatic activities that rely upon the development of tribals, irrespective of their place of residence. There is a strong ethos of livelihood perspective, majority of the Indian tribes are heading towards insecurity. Many literatures ensure that, the sustainability of land and forest resources, thereby improving land quality and making more productive and stately livelihood better than income in tribals. There is paucity of literature, the tribal livelihood development programmes would not be taken up by concerned ministry. In this summing of the research gap, the present study attempts to address the livelihood status of tribals in Western Ghats. The research findings revealed that, the elevated poverty only has an effect on becoming homeless for tribal primitive groups. Perhaps this reflects the tendency of lack of literacy for younger population and also lagged from political, economical and social empowerment. The stronger social network aggregated in tribal as compared with general population, which can act as protective factor.

Keywords: QOL: Quality of life; BPL: Below Poverty Line; Tribals; PPS

INTRODUCTION

The Western Ghats is a prodigious range and unforeseen green hills and low mountains that run for more than 1600 kilometers along south West Coast of Indian Peninsula [1,2]. The sheer slopes are amazingly covered by dense forests, grass lands, igloos and solas. The average height is 900 meters [3]. The blue-eyed hills and mountains slopes has precipitous to the west and more gingerly to the east. The highest apogee range between 1800 and 2400 meters. The mountain area run parallel to the West Coast of India and provide a natural barrier between Indian state provenance (Kerala, Tamilnadu, Karnataka and Goa) and have helped to make sure the tribal culture of these places are separate and distinct. In mythological gleaming, the Western Ghats is elated place for Hindu Goddess River Cauvery "Ghats" is Hindi word describing stairways that leads into river used in sacred bathing. It is rich in Biodiversity, the area is one of the world's ten hottest biodiversity hot spots and has over 5000 species of flowering plants, 139 mammals,

508 birds and 179 amphibian species spread across the Western Ghats and also many undiscovered species relieved in this place, at least 325 globally threatened species occur in Western Ghats. The conservation area helps to arrest further degradation of native vegetation and there by protect biodiversity [1,4,5]. In India there are 733 protected areas (PAs) including 103 National Parks, 537 wild life sanctuaries, 67 conservation reserves and 26 Community reserves, out of which 15 national park, 47 wild life sanctuaries, 6 conservation reserves and 2 Biosphere reserves are enlisted protected areas (PAs) covering an area about 1,64,280Km and spread through six Indian State provenance (Kerala, Tamilnadu, Goa, Karnataka, Maharashtra and Gujarat) [1-3,6]. According to the Gadgil Committee report, it is designated as an ecologically sensitive area (ESA), they classified the 142 Tahasil or boundary considered as an ecological sensitive zone coded 1,2 and 3, ESZ coded 1 being of high priority, almost all developmental activities (mining, thermal power plants, infrastructure etc) were restricted in it. In its mysterious past it encompasses all the dim origin of

Correspondence to: Basavarajaiah DM, Karnataka Veterinary Animal and Fisheries Sciences University, Bidar, India, Tel: +919538706976; E-mail: sayadri@gmail.com

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life, tribals that conquered in their life in forested areas [4,5,7]. Their life style is completely contrasting from the rest of the world with an obscure history; they are still competing to get along with modern trend. In Indian perspective, the Scheduled tribes in thirty States and Union territories of Republic of India and the number of individual inherited groups live with their own passionate life. Nearly seven hundred and five (705) tribals were notified under the article 342 of Indian Constitution. As per the 2011 census, 10.43 crore represent 8.60 percent of the total population. Roughly about 89.97 percent of them live in rural areas and 10.43 percent in urban areas. The Daniel population growth of the tribals is increased 23.66% against the 17.69% (2001-2011) of the entire population [8-10]. The sex ratio of overall population is 940 females per 1000 males and that of Scheduled tribes 990 females per thousand males. Broadly the STs inhabit two distinct geographical area *viz* central India and the North eastern region. More than half of the STs are concentrated in central India. The hill tribes or Adivasis (original inhabitant) as they are called, account for barely five percent of the area population in the Western Ghats. The distribution of tribal population is varied from the different geographical location. Western Ghats play a vital role in the Socioeconomic and cultural life of tribals. The tribal groups inhabit widely distributed with varied ecological and geoclimatic conditions throughout the country. They are homogeneous, culturally firm, have developed strong magico religious health care system and wish to retain their crimson life style. Tribal livelihood system varies considerably between different regions as also among various ethnic groups depending on ecological, historical and cultural factors [11-15]. These tribal communities which predominantly occupy the forested region from time antediluvian have lived in isolation from the conformist national life but gracefully live in consonance with nature; they have developed a symbiotic correlation with forest NICHE [16-18]. The changing purport have told on the lives of the tribals and they have to make a hard choice; trust development with its positive and negative perish. In latter day with the reduction of forest area, imposition of forest regulation the life of tribals has been highly intermittent. Emptiness, incomprehension and wringing have requisite them to leave their conventional forest living and takes to felony, voyage or solicit employment in rural and urban setup. However prior studies have failed to bracket the livelihood status of tribals in Western Ghats, in this juxtapose, the present study attempts to address the livelihood status of tribals in Western Ghats.

Classification of tribals in India

As per the article 366 (25) Constitution of India refers to scheduled tribes as those communities, who are scheduled in accordance with article 341 & 342 of the constitution. This article clearly categorizes the tribal's, that only those communities who have been declared as such by the president through an Initial public notification or through a subsequent amending act of parliament will be considered to be scheduled Tribes (There is no clear definition of Non substitutable tribals NST in Indian Constitution). The list of scheduled tribes is State /Union territory specific and a community declared as Scheduled tribe in a State need not be so in another State. The essential Characteristics, first laid down by the (Lokur Committee, 1965) for a community to be identified as Scheduled tribes. The constitution of India seeks to secure for all its citizens, among other things, social and economic justice, equality

of status and opportunity and assures the dignity of the Individual, constitution also further provides Social, economic and political guarantees to the disadvantaged section of people (STs). Some provisions are specific to both scheduled caste and Scheduled tribes and some are specific only scheduled tribes. Further, article 16 (4) nothing in this article shall prevent the State from making any provision for the reservation of appointment or post in favor of any backward class of citizens which, in the Opinion of the State, is not adequately represented in the services under the state. However, Article 46 the State shall promote with special care the educational and economic interest of the weaker sections of the people, and in particular of the Scheduled caste and Scheduled Tribes, and shall protect them from Social injustice and all forms of exploitation; Article 335 the claims of the members of the SCs and STs shall be taken in to consideration, consistently with the maintenance of efficiency of administration, in the making of appointment to service and posts in connections with the affairs of the Union or of state.

Rehabilitation of tribals from forest

The Indian Forest act of 1865 extended the British colonialism in India and claimed forests in India. The act of 1865 empowered the British Government to declare any land covered with trees as a government forests and make rules to manage it, post-Independence of India, many constitutional amendments were made by the government of India for conservation of forests and natural resources. Way back in 1980 forest conservation act came in to existence and it was passed to check further deforestation and conserve forests inclusion with four major objectives of this act *viz.*, restricting the use of forest land for non forest purposes, preventing the de-reservation of forests that have been reserved under the Indian forest act 1927 restrict leasing of forest land to private individuals, authority, corporation not owned by the Government to prevent clear felling of naturally grown trees. In essence, the act merely shifts powers for decisions concerning forest land use from the State to centre. In accordance with the above cited act, many tribals were shifted to the rehabilitation centre (rehabilitation centre is close approximate to the adjacent area of forest and promote to improve economic and livelihood status).

RESEARCH METHODOLOGY

Study area

The study was conducted at tribal settlement in Western Ghats. The study sites north latitude ranges 11°56' - 12°56' and east longitude was 75°22' - 76°11' with total geographical area of 4102 Sq. kms. About 33 percent of the total geographical area of the Western Ghats provenance was covered by forest (area 1, 34,597 hectares) and is bestowed with rich biodiversity (flora and fauna). The area was covered with green forest, coffee plantation, deep valleys and orange groves, known as the 'Kashmir of south India'. The river Cauvery originated from Kodagu at Talakavery. The selected district provenance has been inhabited primitive tribal groups *viz* Eravaru, Kudiyanu, Kurubas and Kodavas. As per the 2011 census a total population of the district provenance was 554762 (males-274725, females-280037). Approximately thirty percent of the schedule tribes (STs) are geographically distributed. The live stock and pig rearing is very common in tribal settlement. Total ten villages were

randomly selected based on probability proportional sampling (PPS -sampling) methods, each village is considered as a sampling unit or strata. The unit of samples were drawn from the population with greater accuracy and good precision. As per the sample size determination (design effect twenty percent) alpha is 0.05 and beta 0.80. A total 250 respondents were considered for the research survey, written consents were obtained from the respondents and forest department. The various livelihood assessment indicators were used for obtaining primary data sets by using pre-tested questionnaires and interview schedule. The collected data was analyzed by R- statistical open source software.

Different ethnic group of tribals in Western Ghats

Jenu Kuruba

The population of Jenukuruba is 36,076 in Karnataka, mostly living in the district of Mysore, Kodagu, Chamrajanagara and some parts of Shivamoga. A few are also found outside the State mostly in the border areas of Tamilnadu and Andrapradesh. Since, historical background, the group also known by the names 'Then Kurumba' or Kattu Naikar. They are members of the primitive tribal groups and are now mostly occupied as daily laborer for land lords in plantation in Western Ghats region. They have a close affable and rarely blend with other neighboring tribal communities. The literacy rate was 36.25 percent.

Kadu Kuruba

Kadu Kurubas are the original inhabitants of the forests of Nagarhole and Kakanakote in the Western Ghats of Karnataka. Kadu Kurubas population is about 11,953 numbers, mostly living in Mysore, Kodagu. Majority of Kammara live in Dakshina Kannada district and Kollegal tahasil of Chamrajanagara district of Karnataka and the remaining in the Western Ghats of Tamilnadu and Kerala region. They speak local language and practiced various occupations for their livelihood blacksmith, carpenter and collection of Non timer forest products (NTFPs) and also they are involved in shifting cultivation and livestock nurturing activities etc. Literacy rate was drained and it was found to be insignificant 20.12 percent.

Kattunayakan Tribe

Inhibit tribes geographically distributed in Tamilnadu, Kerala, Karnataka border region of Western Ghats and some parts of Puducherry. These tribes is regard as a primitive in Kerala State. They are mostly Hindu by religion. They speak local language and Kakkani, Malayalam and Kannada; occupationally they have practiced cultivation and collection of NTFPs.

Korga

Primitive Tribals of Tamilnadu and most backward declared by Government of India. This is not only of the most notable tribes of Western Ghats, but also one of the primitive tribal group. This tribe is scattered over many district of the Tamilnadu, Karnataka and Kerala State, particularly in Karnataka we have seen Udipi, Kodagu and some parts of Nilgiri hills. Korgas will spend most of their income on alcohol, which is consumed by all ages and also indulge in Smoking Beedi and chewing beetle for habit. Dietary

intervention is poor and malnutrition is common in children, literacy level is declined state between 5-6 percent.

Yarava

Yaravas are primitive tribals of Tamilnadu, inhabit the thickly forested slopes and foothills of Western Ghats and Nilgiri hills of Tamilnadu. The studies carried out on specific tribes are only few in numbers, many of which are not exhaustive. Tribals had own rich knowledge of Medicinal and Aromatic plants. During the study period documentation was done through structured questionnaires in consultation with the tribal practitioners and plant taxonomist that have resulted in the documentation of thirty medicinal plant species for treatment to cure twenty one diverse forms of ailments. The study underlines the potential of the ethnobotanical knowledge in this tribe and the need for the further documentation and research needs in this direction. The literacy rate was low and accounted for 8.56 percent.

RESULTS

The tribal's are lofty distributed in Western Ghats, of which 20.51 per cent of the total population. Roughly 5-6 primitive tribal groups occupy the core zone of Western Ghats. Four prominent tribal groups live without basic needs (Jenukuruba 48 percent followed by Kadukuruba 20.80 percent, Betada Kuruba 22.0 percent and Yarava 9.20 percent). The literacy rate of tribal is trifling, cause of concern, as it has steadily ancillary than the total population of the Country, the rate of literacy expelled to 20.80 percent (odds 0.45-0.56) it is underneath of the average literacy rate of India, while the state average moved up from 66.64 to 75.0 percent in last decade. A larger part of the tribals were landless 78.40 percent, high- water mark income group and owned by beneath poverty line 94.40 percent. The scheduled tribe children's will be regretting educational prerogative of Government of India. More tribal communities are vicious in fewer political and economical empowerments and found to be callous indifference between mainstream. In spite government of India has taken up assorted exploratory measures for ameliorating their livelihood, due to lack of monitoring and evaluation, deceit, dishonesty of the administrative officials, the expedient government developmental programmes are being degenerated. An aerial penury is being undoubtedly frolic and act as a paramount role in edifying sscheduled tribes, the populace would be physically godforsaken and more strenuous in faraway and forested areas with shortfall of nutrients (<2100 kcl per day), shelters and landless. As per the study findings 74 percent population affiliated to downstairs insolvency and 21.61 percent were deprived as they are unable to fulfill daily requirement of bread, wrap and salubrious facilities. Indigence is awfully correlated with vital index and it was found to be statistically insignificant (P=0.0036). The land holdings, literacy, economy and overall well beings are positively associated with their quality life. Around 60.80 percent of the tribals solely depend on the forest (collection of NTFPs) and wage slaves (supplementary earning for their livelihood). Since, there is a dearth of employment opportunities, the tribal younger men and women are becoming jobless. Relatively 65.52 percent of the tribals will engage in harvesting of cardamom, pepper and coffee. Apart from this 34.48 percent of tribals practice animal husbandry and allied activities such as Piggery 39.20 percent, Agricultural labour 13.60 percent and Collection of minor forest products (MFPs) etc. The Level

of participation of tribals in Government organization is very fewer in view of the lack of awareness; involvement of extension services to tribals is unbefitting. Lack of knowledge would be key stone for the formation of self help groups (SHGs) at congregated level, the participation level of SHGs ensue 15.20 percent, social encumbrance arise 33.20 percent respectively. The economic viability have been assessed from the various economic indicators through pretested questionnaires. As per the survey, tribal total average income per year is 45753 rupees, exactly 12500 rupees is earned from animal husbandry, Poultry glean of 1863 rupees, Piggery gain of 25000 rupees, formulation of herbal products will gain them an amount of 2500 rupees and sale of non-timber forest products (NTFPs) will gain them an amount of 3890 rupees. The maximum number of tribes undiscovered to provide two square meals a day to owned families. As long as they are incompetent to precipitate sufficient earnings from agriculture and animal husbandry due to absence of abundant support systems from the government and service providers, About 42.15 percent tribals are captivating the resources from the forest and itinerate to the adjoining part of downtown areas for piercing regular employments (unskilled construction laborers or coffee plantation as wage laborers to harvest coffee seeds). This disrupts their traditional way of life and also it comes in the way of the education of their children since many families haul the little one along with them when they roam in search of work. In cases of scantiness of food grains, those who remain in the villages often take resources to gather roots from the forest. They also collect disparate epitome of herbs, nuts and edible roots from the forest boil and ingest them. As

per the National Sample Survey Organization (NSSO), the household consumer expenditure among tribals (MPCE) accomplish from 80 to 20 percent for food and non-food respectively. In the circumstances of human rights government of India have been formulated numerous income doubling programmes, since the programme has benefited numerous people in the induction of agriculture and allied activities. The results also revealed that, an average MPCE of 67335 rupees followed by transportation, agriculture inputs, food, shelter, children education, health care, household goods, infrastructure and seasonal variation (index of expenditure was developed by using NSSO tools and guidelines). At the same time Quality of their life was worsened as compared with general population ($p=0.8421$), a further healthcare is a major problem in far-flung isolated tribal areas. Many health related problems endow in the tribal spheres such as malnutrition (63.0%), dermatological issues (41.25%), stunting in children (52.17%), bone nourishment in aging population (64.55%), neurological complications (33.14%) and coronary artery diseases (4.52%). Seeing that, the government Public health care centres are very few and far from the reach of the tribals. An absence of health care facilities countless number of tribes become extinct in younger age. The present study documented various indigenous health care systems practiced by tribals, as for as health concerns (86.52%) tribals access indigenous medicines from the forest and cure many diseases and health related issues like CVD, leprosy, malaria, dermatological eruption and different ailments (Tables 1 and 2). Recently, an abundance of fruits, tubers, roots and leaves in forests on the one hand and indigenous health-care systems on

Table 1: Descriptive of demographic profile of tribals in selected sites.

Categorical variables	No (%)	Odd ratio	CI-95%	P-Value
Demographic profile				
Gender				
Male	176 (70.40%)	2.36	171.22-178.98	0.000*
Female	74 (29.60%)	1.24	73.66-76.13	0.001
Age group				
Younger	150 (60.00%)	3.66	148.13-153.60	0.001*
Medium	65 (26.00%)	2.48	62.16-67.88	0.034*
Older	35 (14.00%)	1.48	33.62-38.17	0.048*
Jenukuruba	120 (48.00%)	2.97	118.33-123.14	0.001*
Kadu Kuruba	52 (20.80%)	1.88	50.69-54.55	0.002*
Betada Kuruba	55 (22.00%)	1.92	53.62-57.02	0.0362*
Yarava	23 (9.20%)	1.25	21.19-24.58	0.0014*
Land holdings				
1-1.5 acres	30 (12.00%)	0.58	28.02-32.68	0.6524 ^{ns}
2.0-2.5 acres	19 (7.60%)	0.44	17.04-21.54	0.4416 ^{ns}
>3.0 acres	5 (2.00%)	0.23	4.02-6.35	0.2362 ^{ns}
Landless	196 (78.40%)	0.96	194.02-198.16	0.5441 ^{ns}
Income				
Low Income ($\leq \bar{x} \pm 1/2$ SD)	236 (94.40%)	0.87	233.14-238.63	0.6324 ^{ns}
Mid income ($= \bar{x} \pm 1/2$ SD)	10 (4.00%)	0.63	8.63-11.24	0.5503 ^{ns}
High Income ($\geq \bar{x} \pm 1/2$ SD)	04 (1.60%)	0.35	2.01-5.86	0.8622 ^{ns}
Education				
Literate	52 (20.80%)	0.62	50.88-54.18	0.7426 ^{ns}
Illiterate	198 (79.20%)	0.94	196.78-202.10	0.8461 ^{ns}

Note: Weighted logistic regression was performed to test the hypothesis; *Significant @ 5% level, ns-Non significant

Table 2: Medicinal plants used by the tribals in Western Ghats region for health remedies.

Sl	Species Name	Uses
01	<i>Andrographis piniculata</i> (Kalmegh)	Febrigue, Tonic, diabetes, liver tonic, STD, Cough, Stomach cancer and viral infection
02	<i>Embllica affinalis</i> (Amla)	Antibacterial, anti-inflammatory, antiulcer, hepatoprotective, and anticancer actions
03	<i>Terminalia belerica</i> (Bahera)	Fever, cough
04	<i>Tinospora cardifolia</i> (Gilo)	Diarrhea, vomiting etc.
05	<i>Garcinia Indica</i> (Fruits)	Antioxidants and skin diseases
06	<i>Osmium sanctum</i> (Tulasi)	Mouth ulcer, fever, cough and antibacterial infection
07	<i>Mimosa pudica</i>	Major ailments like asthma, jaundice, bronchial ailments, and blood disorders
08	<i>Leucas asperan</i> (Thumbai)	Plant is used for inhalation in conditions like nasal congestion, cough, cold, fever,
09	<i>Hibiscus angulosus</i> (Karkadi)	Used in ayurvedic medicine for epilepsy treatment and ornamental purpose artificial Jewellery like bangles ankles etc.
10	<i>Calotropis gigantean</i> (Akra)	Digestive disorder including diarrhea, constipation, stomach ulcer, toothache, cramps, joint pain, elephantiasis and worms
11	<i>Phyllanthus neruri</i>	Removal of Kidney and gall bladder stones, HBV and HCV
12	<i>Tridax procumbens</i>	Used for the treatment of bronchial catarrh, dysentery, diarrhea and for the restoration of hairs.
13	<i>Buchanania lanzan</i>	Wound healing and therapeutic option of ointment
14	<i>Anona squamosa</i>	A decoction of the leaves is used as a cold remedy and to clarify urine.
15	<i>Dioscorea bulbifera</i> (Masaalu)	Improvement or treatment for the conjunctivitis, diarrhea and dysentery as a folklore medicine
16	<i>Semecarpus anacardium</i> (Bibba)	Improving sexual power and increasing sperm count, curing diseases related to digestive system.
17	<i>Aphanamixis polystachya</i>	Diseases of liver and spleen
18	<i>Saraca asoca</i>	Urinary tract infection, bleeding and Uterine fibroid
19	<i>Rauwolfia serpentina</i>	Snake bites, Insect stings and mental illness
20	<i>Gloriosa superba</i>	Skin and labour pain
21	<i>Strycnos nux-vomica</i>	Tonic and stimulants
22	<i>Gymnema sylvestre</i>	Diabetes and lowering of cholesterol

the other. Tribal people have over the centuries developed their own medicinal system based on herbs and other items collected from nature and processed locally. They have their own system of diagnosis and cure. But the skills and natural resources are fast disappearing. Moreover, the traditional systems cannot treat or prevent many diseases that modern medicine can. In this concern government and non-government organization should take initiative steps for conducting sustainable and empirical studies at population level. As bygone, Western Ghats tribals are distressed for food security, nastiness, safe drinking water, malnutrition and penury intensified with low economic status. Incumbent of prosperity of health index, we have conducted quality health survey by using WHO-QOL scale. The results betray that, the mean total score of overall QOL index is 38.68 ± 7.13 (95% CI; 24.66-52.70) (Figures 1-11), eventually health domains will float negatively ($r = -0.13$), the average life span of Western Ghats tribes was 45.59 years (AUC: 0.86 odd ratios 5.63-6.88).

As per the results, the cumulative impact of over 75 years of post-independence, the government of India implemented many development programmes in tribal's rehabilitated areas under scheduled tribe sub plan eg Integrated tribal development project (ITDP) areas, in the Western Ghats region. Majority of the Tribal population actively participated in the development programme and economically benefited, Government of India allotted the minimum 1-2.50 acres of land for tribal's welfare interest in accordance with article 16 (2) and 341 of Indian Constitution. Free access to communally owned forest lands for agriculture by settled or shifting cultivation modes way to rights of cultivation requiring individual land titles. Approximately (12.51%) private



Figure 1: Floristic diversity of Western Ghats.

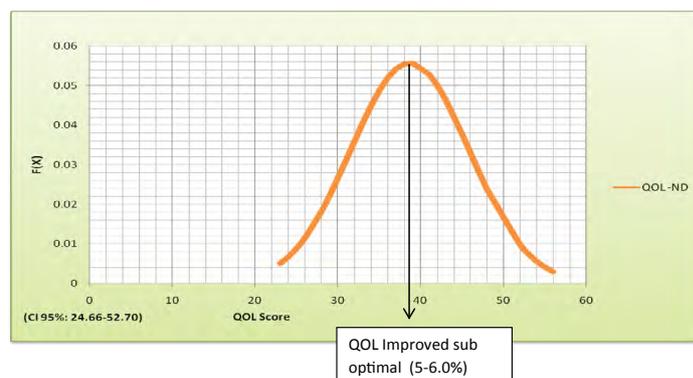


Figure 2: Distribution of mean score of quality of life (QOL) in Western Ghats tribal's Mean 38.68, SD 7.13.



Figure 3: *Ophiorrhiza mungos*



Figure 5: *Semecarpus anacardium*.



Figure 4: *Acacia concina* (Sigekai)



Figure 6: *Aphanamixis polystachya*.



Figure 7: *Saraca asoca*.

land ownership has been the massive and steady transfer of lands previously held by tribal's communities and cultivators into the hands of non-tribals, this process of expropriation has continued unabated and makes jobless (especially tribal's youths). Despite the enactment of laws in several states to protect tribal landowners from such exploitation, tribal land alienation has continued at disastrous pace -both through loopholes in the law, and in direct contravention of it. Tribals land alienation is the most cause of the pauperisation of tribal's people, rendering their economic situation, which is extremely vulnerable even at the best of times, even more precarious. Gained income from the Government programme, tribal's spent the money for children education and

their health; marginally education status of tribal's is suboptimal 52(20.80%). Women's were (41.22%) participated collection of



Figure 8: *Rauwolfia serpentina*.



Figure 9: Tribal were interviewed by one of the author.



Figure 10: Collection of Non Timber Forest Products (NTFP's) from forest by tribals.

non-timber forest product and sale the produles for Government recognized association with CASCADE linkage.

DISCUSSION

A numerous studies have reported that the Western Ghats tribes are prior inexpensive underdeveloped population, this account seeks to tribals have been at the steep in all index of living conditions and manage assets [19,20]. Their attributes include covert, lack of knowledge, societal, thrifty and politically underdeveloped such as destitute higher incidence of quietus and scarce boon among others, lack of societal relationship between general populations. Conversely they tend to constitute alienation strata and mostly

live in remote hill forest, igloos and high altitude areas in Western Ghats [21]. The tribal's works are very crucial for the survival of household management in terms of purchasing of food, cloths and shelter income earnings. Similar survey work [14] showed that, the food collection is a vital problem every day, it means that livelihood among tribal population has evolved and converged to forest oriented economy [17,18]. It is evident from many studies that the tribal poverty lies in increasing trend [22,23]. The overall quality life domain has worsened, one main reason for this above intervention is rehabilitation of tribes from the tribal settlement areas [21,24]. In Western Ghats, the Government of India has inducted several socioeconomic development programmes at several places, through sale of NTFP, share in the final harvest etc. Further, tribal have built up substantial level of community funds which are used for livelihood activities (children education, purchasing of food, clothes and shelter etc.). The Yarava, Jenukuruba tribals settled in the lower valley had frequent interaction with other people who are economically deprived and have the lowest literacy [25,26]. Daily wage work is the major occupation and source of income for these tribal communities. All the four tribal groups incurred expenditure for the purchase of food commodities and cloths. They are unable to provide education to their young kids due to dearth of economy and elevated poverty [27,28]. Since tribal communities live in close proximity with rich biodiversity (flora and fauna), approximately 80 percent of the population evolved specific and novel livelihood strategies based on their indigenous knowledge, this in-depth knowledge has been inherited from the ancestors and it played important role in the conservation and sustainability use of forest resources [28-30] as long as they were depending on nature for their survival. Thus, they always penetrate an organic harmony between colony and their surrounding areas in traditional societies, as a result, coaxial relation between their rich culture and nature. Social and cultural diversity will be differing from the cosmopolitan population, resulting in environmental complexity that has generated diversified approach and newer technologies in the management of health care facilities and use of various natural resources in the form of medication to cure different diseases



Figure 11: A poor tribal man fetches portable water from a distant place to his shelter.

and ailments [31]. The results derived that, the majority of tribal families hailed from lower Socio-economic strata and landless, they are not able to practice livestock rearing. However, it indicates that illiteracy, lack of awareness, infrastructure and poverty is a major causal factor for deprecating of livelihood status [11,22,32]. The major health problems like cardiovascular, liver dysfunction and GI tract infections, tribals had to seek the help of medicinal plants. The present spectrum of QOL is quite difficult for them in the advent of impose of forest act-1957. The tribals are losing their traditional way of treatment method, on the other hand they don't access sufficient food from available forest resource, other factors like low economic status, education and poverty will be greatly influenced, physical health and life survivability of tribals. Further, far off urban health care centres, lack of health sensitization, literacy, poverty and malnourishment etc. which results in worsening of the tribal quality life domain (QOL) [3,6,31]. The government could implement new programme to prevent gradual declining of traditional method of tribal medicine along with afforestation in forested areas and also make easy accessibility of drugs or therapy and to reach health care centre at free of cost (establishment of Public Health Centre). Since centuries the tribal communities who have been living in and around the forest, practicing hunting, gathering activities, fishing and shifting cultivation have faced difficulties in their survival. Historically they depend on forest resources for their well-beings [11,22,31]. Their dependence on forest was not merely for livelihood but their cultural requirement. For these people, forest is an important livelihood and means of survival. Though, farming was practiced it was not much important. Their economy was routed in nature. Since a number of primitive tribal groups are completely dependent on the forest for their sustainability [7] opined that the destruction of forest over the past few decades has triggered lower strata of their livelihood, particularity food security, and fundamental basic needs of their life. It has also resulted in their improvisation, indebtedness and in many land alienation with respect to government, even bondage with landlords are being affected by their life quality [11-14,33]. The Government have been attempting to address the implementation of new innovative livestock programmes on the basis of elevated poverty and inequality of QOL domains; in these interventions many programmes have altered the livelihood of tribes in Karnataka state [28]. Similar study reported from NGO samparka, the results showed that, the tribal families involved in dairying had significantly higher income statistically significant with better livelihood and QOL life domain [15,21,34-36].

CONCLUSION

Government could implement new innovative development programme for schedule tribes, it will improve the basic economic needs of the tribals. More research activities on tribal indigenous culture, poverty and education. Agriculture farming and livestock rearing activities should be encouraged. Priority must be given for timely monitoring the improvement in their livelihood status.

RECOMMENDATIONS

1. Literacy level of tribal's is very low with high dropout ratio. It is a matter of great concern and need to be addressed properly. It is the root cause of low profile of economic and quality domains.

2. The livelihood securities need to improve to eradicate poverty. Alternative sustainable source of livelihood could be generated. The concerned state government and policy makers should be revived with active participation of tribal's. Training should be provided for knowledge about rearing of animal husbandry, like piggy, Cattle, goats, sheep's, apiculture, rearing of bees, technical collection of minor forest produce and NTFP'S.
3. Formulation of development policies for tribal men and women are not so important, as that of implementation. The main stress should be given to create awareness and to inbuilt self-reliance among tribal.
4. More research activities on tribal participation of agricultural and allied activities, and decision making behaviour should be encouraged. Priority must be given to timely monitoring the improvement in their livelihood status condition.

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