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Degradation in Health Status of Tribal Women in Kerala with Reference to Attappady Tribal Block

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Abstract
The awareness of health and health related behaviour among the tribal people are associated with their traditional beliefs, practices, nature of interactions with the physical environment and changing social, cultural and economic sphere. The health scenario of the tribals is functional more than clinical. It is a part of the cultural background which is continuously changing and adapting itself to changes in the wider society. According to the 2011 Census, the total tribal population of Kerala was 426,204. This constitutes only 12.7% of the total population of the state. The tribal population is comprised of 39 different communities. Among these, the most marginalized and economically and socially backward is the Paniya community. The population of the Paniya community is 92,787 (21.77% of the total tribal population) and the number of Paniya families, 21,604 (20.01%).The major problems being faced by the tribal population are land alienation, displacement from traditional avenues of employment malnutrition, ill health, erosion of traditional knowledge and culture, dwindling bio-diversity, denial of or restricted access to common property resources (CPRs), lack of educational opportunities gender inequity, sexual exploitation of and violence against women, alcoholism, and vulnerability due to socio-economic and political powerlessness.Wayanad District stands first with 35.94 per cent of the Scheduled Tribe population of the State, followed by Idukki (12.42%), Kasaragod (11.21%) and Palakkad (11.01%) Districts. As usual, Alappuzha stands as the lowest district of Scheduled Tribe population with a representation of only 0.71 per cent of the population. The tribals are degraded in every spheres of their life due to many reasons. The basic foundations of their life are deeply rooted in the forest. With the complete deforestation, tribes are alienated not only in their life but also from their culture.
Keywords: tribes, marginalization, malnutrition, depletion of Health

The indigenous population of the nation, known as Adivasi or scheduled tribes (STs), is among the poorest, vulnerable and most marginalized groups of the nation.(India Ministry of Tribal Affairs). Most of them remain at the lowest stratum of the society due to various factors like geographical and cultural isolation, low levels of literacy, primitive occupations and extreme levels of poverty.(Subramanian SV, Davey Smith G, Subramanyam M). Health is a prerequisite for Human development and wellbeing of a community.

India along with the sub Saharan Africa region is the only country in the world where the number of very poor people has registered an increase in the last 30 years. According to a recent World Bank study (The State of the Poor: Where are the Poor and where are the Poorest), India now accounts for one-third of the world's poorest people — that is those earning around 87 cents, less than Rs 50 a day. In 1981, one-fifth of the world's poorest people lived in India; in 2010, the numbers are increased to one-third, around 400 million. Clearly, the Government has to make drastic changes and reversals in its present policies to address the issues of deprivation. It should draw the right lessons from the Attappady tragedy because the deaths could have been prevented the policies been different.

After the independence, from the First Five Year Plan onwards, the Govt. of India gave more emphasis to the overall growth and sustainable development of tribal communities by providing constitutional and legal rights and through the implementation of various administrative strategies. In this stream, under the recommendation from S.C Dube Committee in 1972, the Central Government implemented "Tribal Sub Plan" (TSP) programme in 1974. Socio-economic development of Scheduled tribes and protecting them from all kinds of exploitations are the major objectives of TSP. According to Planning Commission guidelines, the Government should channelize the flow of fund and benefits from general development sectors at least in the proportion of tribal population of the country. There is no scarcity for the flow of programmes from the center to the state and within the state Government. Even though this is the situation there happening lot of deaths in tribal hamlets. Recently malnutrition becomes a serious issue among the tribals.

Malnutrition kills, maims, cripples and blinds on a massive scale worldwide. It affects one in every three people worldwide, afflicting all age groups and populations, especially the poor and vulnerable. It plays a major role in half of the 10.4 million annual child deaths in the developing world; it continues to be a cause and consequence of disease and disability in the children who survive. Malnutrition is not only medical; it is also a social disorder rooted in poverty and discrimination. It has economic ripple effects that can jeopardize development (WHO)The increased recognition of the relevance of nutrition as a basic pillar for social and economic development placed childhood undernutrition among the targets of the first Millennium Development goal to "eradicate extreme poverty and hunger.(United Nations Millennium development goals).

Worldwide malnutrition is one of the leading causes of mortality and morbidity in childhood. According The World Health Report 2005, most deaths among children under five years are still attributable to just a handful of conditions and are avoidable through existing interventions. Six conditions account for 70 percent to over 90 percent of all these deaths. These are: acute lower respiratory infections, mostly pneumonia (19 percent), diarrhea (18 percent), malaria (eight percent), measles (four percent), HIV/AIDS (three percent), and neonatal conditions, mainly preterm birth, birth asphyxia, and infections (37 percent). Malnutrition increases the risk of dying from these diseases. Over half of all child deaths occur in children who are underweight. Malnutrition among the children in our country is worse than that of some African countries. As far as children are concerned, the right to nutrition is their primary and natural right. Attappady had gained public attention because of the deaths of infants due to malnutrition/hunger in 2013; once again, it again falls under a dark shadow, owing to the deaths of children that continued in 2014 as well. Data upto 31st December 2014 reveals the death of 22 children (13 as per government statistics) and the death of 37 infants during pregnancy.

Hunger and malnutrition remain among the most devastating problems facing the majority of the world's poor and needy. Nearly 30 percent of humanity—infants, children, adolescents, adults and older persons in the developing world—are currently suffering from one or more of the multiple forms of malnutrition. Some 49 percent of the 10.7 million deaths among under-five children each year in the developing world are associated with malnutrition. In the year 2000 an estimated 149.6 million children under five years of age, of which 26.7 percent of the world's children in this age group, are still malnourished when measured in terms of weight for age ((WHO/NHD/00.6).

There is considerable variation in the prevalence of malnutrition by state. Among the states, Bihar and Kerala have the highest and lowest prevalence of undernutrition, respectively. Though the Health indicators of Kerala are higher, compared to other states in India, the situation of nutrition in critical sectors and areas of population does not portray a good picture. The data presented by the National Nutrition Monitoring Bureau (NNMB) 2003, shows that 40.7 percent of children are underweight, 30 percent stunted and 33.8 percent wasted.

Profile of Attappady

Attappady is a tribal development block located on the eastern sloping plateau in the Western Ghats, in Mannarkad taluk of Palakkad district of Kerala and covers an area of about 745 sq. kms. It is a part of the Nilgiri Biosphere Reserve, which covers parts of the three states of Kerala, Tamil Nadu and Karnataka.. In 1901, this region was mostly forested and inhabited exclusively by hills tribes. Forest coverage which was 82% in 1959, came down to 19.7 % in 1996. The share of tribal population came down to 40.9% in 2001 from 90% in 1951. The share of scheduled caste (SC) population among the total population was 4% while that of general category was 55%.

The population of Attappady consists of tribals and non-tribals; the three tribal communities being the Kurumbas who are essentially forest communities and have been categorised as a 'primitive tribe', the Mudugas, and the Irulas. There are 192 hamlets known as *'oorus'* in Attappady, which are habituated by both the adivasis and the non-adivasis. The non-adivasi population, refferred to locally as *'vandavasis'*, consist of migrants from Tamil Nadu, residing mainly in the eastern low-lying region of Attappady, and migrants from the rest of Kerala, who live mainly in the western regions.

The key figures in the adivasi communities for each *ooru* include the *'Moopan'* who is the chief of the *ooru*, and his wife the *'Moopati'*; the *'Kurutala'* who takes care of relations between the *oorus*, taking a leadership in resolving inter-*ooru* conflicts, if any; the *'Bhandari'* who is responsible for ensuring food security in the hamlet, particularly in making sure that nobody in the hamlet goes hungry, and the *'Mannukaran'* who is

responsible for conducting agricultural operations on time, as well as for the distribution of agricultural land within the hamlet. Various studies have documented the traditional agricultural practices of the adivasis, which was in the form of community agriculture, in which the labour and produce were shared. They also have their own family lands.

The Attappady Block is divided into the three Gram Panchayats - Agali, Sholayur and Pudur. From various studies it is learnt that initially the formal structure of governance in the area was established through the formation of the Attappady Panchayat in 1962, which was trifurcated into the Agali, Sholayur and Pudur panchayats in 1968. The details of the Gram Panchayat-wise *oorus* is as follows:

Table-1

Population in Attappady-A Profile

Sl. No.	**Gram Panchayat**	**Irula** ***Oorus***	**Muduga** ***Oorus***	**Kurumba** ***Oorus***	**Total**
1	Agali	53	18	0	71
2	Pudur	45	5	24	86
3	Sholayur	46	4	0	50
4	**Total**	**144**	**27**	**19**	**192**

Source (Census Report 2011)

The intensity of the Tribal problems in Attappady

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity – WHO. The yardstick of how developed a society is generally based on the health and education of people. A fact revealed in the national family health survey is that one out of two new-born children in India is born low-weight/ is malnourished.

The population of Attappady, an important tribal inhabitant area, in 2011 was 30460 (44%). The tribal population remained excluded from the social and economic development growth story of Kerala. There are no dearth of laws that are meant to protect the tribal people, but on ground reports from tribal areas reveal that the those who are supposed to implement these laws instead constantly violate them. The continued death of infants in Attappady is an unfortunate testimony to this. In 2013, 47 deaths of infants were reported from Attappady and schemes amounting to Rs. 400 crore were announced by the Union as well as the State Government. Moreover, the three-tier panchayat set apart Rs.1.26 crore to eradicate malnutrition. But the present reality is that one third out of these remains mere announcements.

Under these circumstances, Thampu (NGO) decided to conduct a clear study to understand and analyze the situation of the children of Attappady. In all the studies conducted from 2003 till date the ratio of malnutrition among the marginalized population in India was 1 out of 3 at the start, today it has turned into 1 out of 2 which is a disgrace for a supposedly modern democratic society like India.

Kerala, a state with a robust performance in the health sector, received a jolt from a report of the Comptroller and Auditor General (CAG) of India, which stated that as per the World Health Organisation (WHO) growth standard the percentage of malnourished and severely malnourished children in Kerala as on March 2011 stood at 36.9% and 0.8% respectively (The Hindu: 2013). This is not surprising because the situation of malnutrition and related health problems is abysmal among socially vulnerable groups in the state of Kerala. For instance, the incidence and intensity of malnourishment and health problems are high among tribal groups, fisher folk in Kerala. C D Rozario (2013) has observed that among Adivasi children of 12 months or less, 9.1% are severely underweight, 32.2% suffer from severe stunting and 7% suffer from severe wasting. At the same time, it was found that 54% of children from the fisher folk community below the age of 6 were malnourished. The status of nutrition of tribal children is appalling in Attappady tribal block in the Palakkad district of Kerala. One of the first tribal blocks to be established in India, Attappady is one of the most backward blocks in Kerala.

The negligence towards the tribal communities in Attappady is very high. Tribal groups are suffering from extreme starvation and malnourishment even after years of its formation. A study by Kerala Institute of Local Administration (KILA) (2008) reveals that 48% of the total tribal households are poor. Kerala has received

another pertinent jolt from the CAG after a report prepared by the National Institute of Nutrition showed that the overall prevalence of underweight, stunting and wasting among the children attending a health camp at Tribal Specialty Hospital at Kottathara in Attappady tribal block was very high –78.6%, 77.8%, and 53% respectively. The overall prevalence of anaemia was 85% among women, with 56% having mild anaemia, 28% moderate anaemia and 1% severe anaemia.

A recent survey conducted by Thampu, a Non-governmental organisation (NGO) dealing with tribal rights found that out of the 300 tribals affected by malnutrition 200 were children. K.Venugopal, the district medical officer, said that 412 cases of anaemia and 67 cases of malnutrition had been noticed by the health department (The Hindu: 2013). The Integrated Tribal Development Programme conducted a survey between 11 April 2013 and 19 April 2013 in Attappady, covering 7,565 households and a population of 23,599, and found that the number of tribal people with anaemia/malnutrition was 463/69, the number of children aged below five with anaemia/ malnutrition was 68/57 and lactating mothers with anaemia and malnutrition was 62/ 0 (The Hindu: 2013). The UNICEF Report (2013) observed that weight of the mothers at delivery ranged between 39 and 45 kgs. The Ekbal Committee (2013) said that most women had undergone abortion more than once and almost all children examined suffered from anaemia and malnutrition. Difference between the nutritional status of Kerala's general rural populace and that of Attappady could be as high as 50% (Suchitra: 2013). Considering these dismal statistics, Attappady can be called Kerala's "sub-Saharan Africa".

Dietary pattern of tribals

Dietary habit of most of the tribes in India is not satisfactory. Tribal diets are generally grossly deficient in calcium, Vitamin A, Vitamin C, riboflavin and animal proteins. Diets of south Indian tribes, in general and Kerala in particular, are grossly deficient even in respect of calories and total proteins. Studies carried out at National Institute of Nutrition (1971) and Planning Commission of India (Sixth five year plan, Government of India) reported a high protein calories malnutrition along the rice eating belts. Surveys on the nutritional deficiencies(Gopaln C) among the tribals show a high incidence of goiter, angular stomatitis among the Mompas of Assam and Vitamin A deficiency among the Onges. A high incidence of malnutrition was observed (Ali.A, Basu S.K1990, Mahapatra and Das, 1990) in some PTGs like Bondas in Koraput and in such other groups in Phulbani, and Sundergarh district of Orissa and also among Bhil, Garasia of Rajasthan, Padar, Rabari and Charan of Gujarat (Haque M (1990)). Pulses, milk and milk products and other animal products which were the main sources of protein are lacking in the diets of tribal women of Trivandrum district, Kerala (prema L,Thomas F 1992). Deficits of calcium in the diets of pregnant and lactating tribal women of western and central India were reported by (Gopaldas T1987). Detailed clinical examination of the Kannikar tribal women showed that anaemia (90%), vitamin A deficiency (30%) and niacin deficiency (10%) were prevalent among these tribal women (prema L,Thomas F (1992). ICMR bulletin (1996) documents high prevalence of goiter and intestinal parasites in Baigas of Baigachak area of Mandla district of Madhya Pradesh. RMRC Jabalpur reported incidence of Goitre as 11.6% among Bharias children below 5 years in Potal Kot valley in Chindwara district of M.P. Study among Pauri Bhuniyas of Orissa (Ali A1992) showed that 52 women as against 17 men in a sample of 268 persons suffered from diseases related to malnutrition. Historically it has been observed that male and female individuals in tribal populations are undernourished. For example, a study among Kondhs, a major tribe in central India has shown that over 55% of them consume less than 2000 calories per day (Patel S.(1985) and most of them as little as 1700 calories (Sharma K,1979) compared to the ICMR stipulated requirement of 2400 calories.

Victims of the problem

Socially marginalized groups like tribal women and children in particular, in many states are the worst victims of this problem. It is shocking to note that Kerala – a state with the remarkable achievements in human, and social (health) indicators – has excluded the tribal groups from its developmental benefits. It shows that development in human and social (health) sectors are as not inclusive as claimed by the state Tribal women being the most vulnerable section, fall prey to various levels of exploitation and discrimination from the rest of the society. The very working of the development paradigm, by uprooting them from their niche, language, modes of understanding, livelihood etc., proves to be against their interests.

Body Mass Index (BMI)

The Body Mass Index is a value derived from the mass (weight) and Height of an Individual. The BMI is defined as the Body mass derived by the Square of the Body height, and is universally expressed in units of kg/m2, resulting from weight in kilograms and Height in Meters. The overall improvement in Health is also reflected in the nutritional status of women and children. The BMI is an attempt to quantify the amount of soft tissue mass (muscle plus fat) in an individual and then categorize that person as under weight or obese based on value.

Table. 2

Body Mass Index and Chronic Energy Deficiency of mothers

Tribes	Severe	Moderate	Mild	Normal	Total
Irula	30(22)	45(32)	44(32)	40(29)	139
Muduga	43(28)	50(33)	29(19)	30(20)	152
Kurumba	20(22)	32(34)	23(25)	18(19)	93
Total	93	127	96	88	384

Source: Survey Data

Body Mass Index is the important measuring tool to assess the Nutritional problems of the Adults. The food intake pattern is closely related to the Body Mass Index of Adults. Tribal women in Kerala with poor health and Nutrition are more likely to give birth to low weight infants. The tribal women suffer from high levels of morbidity and mortality; they do not generally seek medical aid from facilities such as health centers. As per WHO criterion, the percentage prevalence of Chronic Energy Deficiency (CED) among Tribal women fall in the category of very high and the situation is critical And alarming. It suggested that intervention programme is necessary to combat the malnourishment in the form of low BMI among tribal women in Kerala.

Hemoglobin and Anemia

Anemia is a very critical condition of disorder in health of the women in tribal areas. Anemia is a condition in which the Hemoglobin level is below normal and insufficient to meet physiologic conditions. Most of the tribal women in Kerala are experiencing low Hemoglobin count. Some of the health problems among the tribal mothers are shown in the Table.

Table 3

Health problems of tribal mothers

Problems	Irula	Muduga	Kurumba
Hair sparse	10(7)	24(16)	10(11)
Hair Discolored	34(24)	31(20)	20(22)
Angular stomatisis	24(17)	30(20)	10(11)
teeth mottled	12 (9)	21(14)	19(20)
Teeth caries	14(10)	7(5)	8(9)
Cheilosis	18(13)	9(10)	6(6)
Kerato malacia	2(0.1)	-	-
Emaciation	5(3.5)	8(5)	-
Bitos spots	6(4)	8(5)	10(11)
Rickets	6(4)	2(1)	2(2)
Gum Spongy&bleeding	5(4)	8(5)	2(2)
Knick knees	3(2)	4(3)	6(6)
Total	139	152	93

Source: Survey Data

One of the most common causes of Anemia is inadequate in take of nutrients. Most of the women in Attappady are facing this issue. It is a major public health problem among tribal children also. It is a condition that develops when the blood lacks enough healthy red blood cells or Hemoglobin. Anemia is also one of the causes of premature births and increased neonatal deaths. The clinical results of iron deficiency anemia during the time of pregnancy include preterm delivery, prenatal mortality, and postpartum depression. Fetal and

neonatal consequences include low birth weight and poor mental and psychomotor performance.

Table 4

Reasons for change in the life of community

Reason	Frequency	%	Frequency	%	Frequency	%	Weighted Score	Rank according to weighted score
Changing agricultural practices	99	33.0	72	24.0	43	14.3	161.3	I
Changes in weather conditions	45	15.0	23	7.7	49	16.3	76.7 -	V
Natural disaster	12	4.0	22	7.3	22	7.3	33.9	V11
Denial of theirTraditional life pattern	37	12.3	57	19.0	31	10.3	85.2	IV
Crop diseases	10	3.3	23	7.7	84	28.0	53.3	VI
Intervention of non-tribal community and decline of health status	58	19.3	32	10.7	46	15.3	94.6	11
Changes in the social and cultural practices	37	12.2	713	24.7	24	8.0	94.0	111
Others	2	0.7			1	0.3	2.4	V111
Total	300	100.0	300	100.0	300	100.0	100.0	

Source: survey Data

The different tribes in Attappady are experiencing the Nutritional Deficiency problems in different manner. The prominent reason for these problems is the lack of Vitamin and sufficient nutritional deficiency. Malnutrition or poor absorption of nutrients in to the Body can lead to nutritional deficiency states, several of which can lead to stomatitis.

This is happening at a time when the Central and State governments are pumping in about Rs.500 crores under different special packages in the region to fight poverty and malnutrition and for employment generation and improving basic living standards. The number of Reports and contents are not less in number.

Prime reasons

Lack of nutritious food and proper health care for tribal women during pregnancy has led to such a devastating situation of death. Most of the tribal women are anemic. The condition is acute among pregnant women and lactating mothers. While a below 10 gram hemoglobin count is termed dangerous for pregnant women, the hemoglobin count of most pregnant Adivasi women in Attappady is seven or eight and sometimes below that figure. The acuteness of the figure of increase death among the tribal children often shows exaggerating news for the public and the media

A year after a large number of child deaths were reported from Attappady owing to malnutrition, an official survey has found that 572 children below the age of five in the tribal belt still remain malnourished. As per the findings of the survey conducted by the National Rural Heath Mission (NRHM), the condition of 127 children remains extremely serious and the rest are in the high-risk group deserving immediate attention. This is happening at a time when the Central and State governments are pumping in about Rs.500 crore under different special packages in the region to fight poverty and malnutrition and for employment generation and improving basic living standards. Attappady has 10,000 tribal families belonging to the Irula, Muduga and Kurumba tribes, living in 192 oorus (settlements) scattered in the three panchayats. The report attributes the reasons for malnutrition to marginalisation and impoverishment of Adivasi communities, lack of food and nutritional security, and poor health-care and supplementary nutrition services. Attappady stands testimony to how land encroachment by outsiders and the mainstream development process of the government could deeply shatter an erstwhile self-sustained community..

Table 5
Livelihood issues among tribal mothers

Sl.No	Livelihood issues	Rank
1	Alcoholism	1
2	Wild animal menace in agricultural lands	6
3	Land alienation	3
4	Addiction to narcotics	7
5	Depletion of natural resources like forest and water Bodies	4
6	Inadequate transport facilities	10
7	Inadequate educational facilities	8
8	Inadequate medical facilities	2
9	Social exclusion and discrimination	9
10	Cultural invasion by non tribals	11
11	Gender discrimination at work places	5

Source: survey data

"The poverty and malnutrition among the tribes itself is a testimony of the failure of the development projects," the only way forward is to take tribal communities and organisations into confidence before planning anything for them. Now the community is shattered.

Conclusion

The intensity of the malnutrition and related health problems are some of the most important issues facing the country. So the worst part of the victims will become the marginalaised section of women and children. It is shocking to note that Kerala – a state with the remarkable achievements in human, and social (health) indicators – has excluded the tribal groups from its so-called achievements. So the basic facilities for Health and education itself are not inclusive for the tribal's at the time of emergency. For instance, more than 60 tribal infant/children died due to the combined impacts of loss of indigenous food items, poor public distribution system, unavailability of alternate nutritious food and the loss of employment opportunities, which led to widespread starvation along with high malnutrition and related health problems in the past 24 months in Attappady, the only tribal block in the state of Kerala. In order to increase livelihood opportunities and ensure health of tribal groups in Attappady, the following suggestions may be useful.

Right to health needs to be enacted. A Special Land Distribution Act for Attappady needs to be implemented since the tribal groups have lost more than 10,000 acres of land (The Hindu 2013, Ekbal Committee: 2013, Rozario: 2013). Deployment of a Central Development Force (CDF), a special police wing to capture or arrest those who are not the implementing schemes/programmes meant for socially weaker sections should be considered seriously. A culturally sensitive approach to the implementation of MGNREGS should be looked into. This essentially means that the chief or *mooppan* of each tribal hamlet should be granted powers to plan, more culturally sensitive approach should be implemented for the tribals. Formation of tribal sabhas or hamlet sabhas and tribal self-help groups should be encouraged. Educational facilities should be adopted for the tribals by understanding their sensitivity towards the culture. Awareness programmes should be implemented. Training programme for the empowerment of women to be adopted. The quality and quantity of health services provided by both public and private sector in Attappady should be upgraded. In case of shelter, effective protection is to be needed. It also showed up the need for greater gender sensitisation of all stakeholders such as the judiciary, the police, lawyers, bureaucracy, etc. At the end, however, it is women themselves who have to take measures to protect their human rights.

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