



## The State of Prevailing Health Conditions In Tribal areas (A Study in the Srikakulam District of Andhra Pradesh)

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**Abstract** The overall picture regarding health and nutrition indicate that the health and nutrition rate is very high among medium and large farms of both the tribes those who are living in plain areas. At the same time the health conditions are comparatively low among marginal and small farms of Konda Savara tribe who are living in hilly and remote areas. This is very important point on which the policy makers can give serious thought as part of overall improvement in the levels of living of the tribal people. The analysis of family planning practices of the tribal households reveal that still the Konda Savara tribe and marginal farms needed more emphasis to promote family planning practices. Much emphasis may be given by the governmental and non-governmental agencies on providing more formal and informal learning facilities to Konda Savara tribe and marginal farms live in the hilly and remote areas to make more conversant with the health centers. The further promotion of health facilities will improve their levels of living.

**Key Words:** Primitive Tribes, ITDA, Desiguru, Native Medicine, Sub-Plan Area,

### Introduction

Tribals in India as elsewhere in the world are known for their unique ways of living and distinct culture, which provide them a distinct identity on the national scene. However, their peculiar life style, crude and primitive technologies and their tendency to inhabit the seduced and isolated areas have led them to economic misery, underdevelopment and seclusion for the mainstream of national life. Therefore, after independence special policy initiative were taken towards the improvement of their all round development. Economic Planning since First Five Year Plan, recommended that a positive policy for assisting the tribals should be formulated in order to develop their natural resources and evolve a

productive life, which can prevent exploitation by more organized economic forces. In the Second Plan it was emphasized that all welfare programmes should be made in the context of tribal culture reviewing their psychological and economic problems. In the Third Plan, it was accepted in principle that in facilitating the development of agriculture, communication, health and education services, the tribal people should able to develop their own traditional culture without pressure or imposition from outside.

Under the Fourth Plan six pilot projects for tribal development known as Tribal Development Agencies were taken up in central sector. The Fifth, Sixth and Seventh Plans saw the emergence of the



Tribal Development Strategy in the country in a minimum scale. The tribal Sub-Plan envisaged pooling of all available physical and personal resources. The Eighth and Ninth Plans emphasized a total integrated effort for all round tribal development. For future planning for tribal development, the study of the past endeavors seems to be essential. The planning process for tribal development in Andhra Pradesh can be broadly divided into pre-independence and post-independence periods. In both the periods the approach adopted and schemes implemented are based on certain events happening in various tribal areas of the country and the consequent approach enunciated for time to time on an all India basis. Again, the two approaches in the two periods can be broadly be characterized as development oriented taking the basic objective and nature of measures introduced. In spite of much emphasis on tribal development, the benefits of plan development have not fully percolated in to the tribal areas. The tribal people remained backward regarding the availability of Health infrastructure is concerned.

Though none deny that development has taken place in tribal areas, when we analyze the expenditure incurred during the different Plans Vis-a-vis the changes brought into the quality of socio-economic life of tribals, the results are not very encouraging. Still tribals in India are in lowest rung of the ladder in terms of health conditions are concerned. Against this background an attempt is made in this paper to discuss about the available health facilities in tribal areas with special reference to the tribals in the Srikakulam district of Andhra Pradesh while adopting following methodology.

#### **Methodology and Collection of Data:**

Multi stage stratified random sampling method is used in the present study. The selection process is carried out in four stages, they are relating to district, Mandal, villages and households. The Srikakulam district is selected for the study due to the fact that the district has drawn worldwide attention through the tribal movement in the political upheaval of 1969 - '71. The Seethampeta Mandal is selected for the study because it is the only tribal Mandal that is having a high proportion of (89.54 percent) tribal population and also the ITDA is placed at Seethampeta. The villages are selected depending upon the higher concentration of specific tribes. With a stratification procedure based on the specific tribe population concentration, the Panchayats are classified into three categories. From the Konda Savara tribes concentrated Panchayats the villages Vajjayyaguda and Mutyalu are selected from very interior hill areas. From the plain Savara tribe concentrated Panchayats Dibba guda and keesari jodu villages are selected and from Jatapu tribe concentrated Panchayats Goidi and Gadiguddi villages are selected.

The Konda Savara, plain Savara and Jatapu tribes are equally proportioned in the Seethampeta Mandal. To examine the inter tribe variations in their education levels and health conditions 60 households are selected from each tribe from their concentrated selected villages based on the random sampling procedure. The selected 180 households are further classified into the stratification of size class groups in accordance with their proportion in total tribal population of the district. Information relating to the selected households is collected while



canvassing a prely designed and structured household schedule in the selected villages during April 2003 March 2004 in different visits. The secondary data has been collected from the offices of ITDA Seethampeta, Chief Planning Officer Srikakulam, MRO Seethampeta Mandal and selected Village Panchyats.

#### **Available Infrastructure in the Tribal Sub-Plan Area of Srikakulam District:**

An attempt is made to present the salient features of tribal Sub-Plan area of Srikakulam district and also to give a brief note on the profile of Seetampeta mandal. The Statistical information pertaining to mandal wise details of total geographical area of the district in hectares, the geographical area under ITDA, total forest area in the district, the forest area under ITDA, percentage of forest area to tribal area and percentage of forest area to ITDA area reveal that the total geographical area of Srikakulam district is mentioned as 5,84,290 hectares. Out of it 2,13,270 hectares is under ITDA. Similarly of 170391 hectares of forest area of the district 132137 hectares is under ITDA. The percentage of forest area to total area is 12.04 percent. The percentage of forest area to ITDA area is 62.23.

The I.T.D.A Srikakulam came into existence with effect from 1-4-1979 registered under Societies Registration Act of XXI of 1860 as a successor body to the Girijan Development Agency, which was established during 1992, as a pilot project of Government of India. The head quarters of ITDA has shifted to Seethampeta with effect from 1-8-1985. The various developmental programmes taken by the ITDA are agriculture, horticulture, sericulture, soil conservation, fisheries, education, animal

husbandry, irrigation, engineering works, electricity, health and effective implementation of Land Transfer Regulation Act to prevent exploitation under land alienation. The sources of funds to implement the above activities are provided by the central and state governments through special central assistance MADA., PTG. DT and IF AD schemes. In the Sub-Plan area there are 32000 tribal students are provided education in 40 Ashram Schools, 9 hostels, 253 GVVK Schools and 282 Maabadi schools and 4 residential schools. Pre metric and post metric scholarships are provided to the students. Text books, note books, free diet, clothes, trunk boxes are provided by the tribal welfare department. A separate IF AD education programme is implemented for improving accessibility, retention and quality with an outlay of Rs.3.20 crores. Also 19 school complexes, 28 S.C.R.Ps., and one PRC are monitoring in quality of education.

#### **Health Conditions prevailed in the Study Area:**

Health is an essential human resource which is a prerequisite for the development of the economy. In spite of good personal hygienic conditions among tribal population health conditions found to be deteriorating due to inaccessibility of medical and health facilities. In modern times the traditional herbal medicines are being discouraged by agents of change and allopathic medicines and services are not available to them as these primary health centers are not catering to the needs of tribals living in interior hilly tracts. The tribals scantily dressed up because of their grinding poverty. Some of the primitive tribal groups do not possess second dress for change. As they are not able to change



their clothes regularly they are likely to be afflicted with skin. diseases. In view of scarcity of water, the tribals are not able to take bath regularly. They sleep on the floor without any kind of mats during nights, some times sharing the space with goats, sheep which are considered as immovable property to them. In view of high incidence of maternity and infant mortality in tribal areas full-fledged maternity hospitals with a minimum 30 beds have to be started in every I.T.D.A. districts of the State.

Most of the earlier studies identified that health requirements of different regions differ depend upon the stage of development. Also even in the same region we can find inter-tribe variations among the tribals, particularly among the tribals living in the interior hill tracts (primitive tribes) and tribals living in plains. Against this background an attempt is made in this study to examine the different dimensions of inter-tribe variations in health and nutrition levels among the tribes in Srikakulam district of Andhra Pradesh.

The ITDA Seethampeta is trying its level best to prevent high mortality rate, malnutrition, separate health plan was taken up with an amount of Rs.98.00 lakh for the year 1996 to 1998. The survey was conducted to identify the chronic diseases and steps were taken up to provide infrastructural facilities like vehicles to PHC, medicines and construction of ANM centers and training 348 community health workers taken up. The community health workers can taken up primary aid in tribal villages which are interior and inaccessible. The data reveal that in the study area there is one Government Hospital (1.20) in the headquarters of

Seethampeta mandal, two Primary Health Centres (2.60) one at Kusimi and the other at Donubai. There are 70 integrated child development centres (90.90) scattered all over the mandal. All the family welfare (planning) centres are managed by health inspectors, A.N.Ms. and voluntary workers. There are three (3) maternity and child welfare centres, one government aurvedic dispensary and two private doctors servicing in the study area.

There are three departmental veterinary institutions in the mandal to look after the health control of epidemic, treatment of sick animals and supply of live-stock fodder., etc. by 1989-1990. Development Officer groups in the mandal are live- stock supervisory 'unit, veterinary hospital at Seethampeta. Rural live-stock unit at Goidi and another unit at Donubai. A comparative picture of live-stock population of the Mandal and District during 1993-94 shows that the mandal reports on 1.90 per cent of the total live stock population in the district. The milk yields of the cattle in the mandal ranges from 1 litre to 2 litres per day.

#### **Health and Nutrition levels of the Selected Households:**

The survey conducted about the existing health facilities in the tribal area indicate that the governmental and non-governmental agencies have been trying to intensify health facilities in the tribal areas during last few decades. In spite of the facilities the native doctor (Desiguru) and medicine are still playing an important role in the health care of tribal people. Particularly tribals are prone to a variety of diseases due to their unhygienic living conditions. Drinking



water is a serious problem in all-tribal villages. They have to drink highly contaminated water, which is with calcium deficiency and causes anemia and other chronic diseases. Many tribals in the hill tracts reported that they use herbs and leaves for their diseases. The Primary Health Centers (PHCs) in these areas are under utilized due to its distance from villages and also due to non-availability of medicines in the centers. However 35 percent of the households in plains reported that they are taking medical care from government PHCs and at their village health camps. The village health camps are creating awareness about the medical care among

the tribal.

Similarly immunization of children against TB, BCG and small pox diseases is also not following by the tribals in the hill tracts only (22 percent) responded positively for the immunizations care in these areas. The numbers of children vaccinated are found high in plain areas (43 percent) rather than hill areas. These ANMs are performing excellent job in immunization of children. ANMs and other medical staff are propagating about medical care for children and pregnant women in the tribal villages.

Table-1: Awareness and Adoption Of Family Planning By Sample Households

S.No.	Tribe	Awareness & Responded	Not Responded	Total	Adoption
01.	Konda Savara	49	11	60	18
		(81.17)	(18.33)	(100.00)	(30.00)
02.	Savara	55	5	60	32
03.	J atapu	(90.67)	(8.33)	(100.00)	(27.45)
		58	2	60	32
		(96.67)	(3.33)	(100.00)	(53.33)
	All Tribes	162	18	180	77
		(90.00)	(10.00)	(100.00)	(42.78)

Note: Figures in the brackets are percentages to total

The presented data on adoption of family planning by heads of households presented in table -1 shows that, family planning has not become more popular in the traditional and remote hilly tribal areas. It is noticed that all most all the tribes in plains use some kind of native medicine, which is derived from herbs to control their size of families. However there is good feeling in the tribal plains regarding family planning. There are midwives and health workers posted in the villages who were trained to propagate the

family planning programmes in the tribal areas. Though the family planning programmes are intensively campaigned in the tribal areas by ANMs and others, the tribals are not showing interest in the family planning. Table 5 indicates that though 90 percent of the family members are aware of family planning only 42.77 percent adopted it, 77 percent of the tribals in the hill tracts are still using a native medicine as a preventive alternative. The adoption is very limited among the Konda Savara tribe and



marginal farms. However nearly 40 percent of Jatapu and major proportion of medium and large farms responded positively to the family planning programmes. There is need to be presented. A size class group - wise analysis of calories intake and protein consumption is examined. The unit of enquiry for this diet survey is family and the data were presented per consumption unit. Various consumption coefficients as stipulated by nutrition expert group of the Indian Council of Medical Research are adapted. Consumption co-efficient as per age groups as given by ICMR have been taken into consideration in order to standardized a family consisting of different age groups. Various coefficients are applied, to the different age and sex groups.

Diet surveys are carried out through various methods such as (a) oral questionnaire, (b) weighing of raw foods, (c) weighing of cooked foods and (d) checking of stock by inventory. Sukhatue refers to two methods of conducting such surveys under Indian conditions. (1) Inter-viewing households on the quantities of foods obtained or consumed with the help of a recall list and (2) Weighing all food stuffs before preparation of meals. The first method is employed in this study by interviewing with the help of a recall list to collect data on different consumer items for the preceding day to the data of enquiry or for the proceeding week, because it is difficult to collect the data for a year or even for one month as there are the difficulties of recall of all sundry items, which the individual households normally consume. Whenever it is found home produced or collected items are consumed, the quantities are specified in terms of local measures such as 'Kunchem', 'Adda', 'Thavva', 'Sole', etc. Then by actual measurement the

equivalence is worked out in standardized measures such as Kilos and Grams. This method is found to be necessary because the tribals are not conversant with standardized universally used measures of weighing. combination of the two methods. In effect at the operational level a slight variation the

Generally we define under nutrition as the inadequacy in the quantity of the diet. It is understood to mean inadequacy in calories intake. Mal nutrition is defined as the inadequacy in the quality of the diet. Energy is required by the body for basal metabolize for performing essential functions such as respiration, circulation, excretion, etc., and an additional supply of energy to perform work related to various types of work. The basal energy requirement differ for different persons depending upon their age and sex, and these differences are eliminated by expressing the energy requirements in terms of an average adult male with use of scale of coefficients. Different occupations require different degrees of activity, which can be classified as sedentary, moderate and heavy. Normally the energy requirement or intake is expressed in the calories units. For a reference man the calorie requirements vary from 2,800 calories per day for sedentary type of work to 4,400 calories per day for heavy work. The Indian Nutrition Advisory Committee had recommended different daily allowances of calories for men and women according to their weights and type of activity and for adolescents and children according to their ages. The calories requirements of 3,900 as stipulated for a balanced diet for an adult man (consumption unit) is adopted as the basis for calories intake of a tribal. In this study calories intake for heavy work





(3900 calories) of an adult male is adopted.

The calorie value of various items of food per consumption unit is worked out on the basis of the calorie values

given in recommended dietary intakes of Indians by Indian Council of Medical Research, New Delhi and the results are presented in Table 2.

Table – 2 Calorie intake per consumption unit and percentage of deficiency

Tribe	Cereals	Pulses	Leafy vegetables	Vegetables	Oils	Sugar	Mutton pork, beef, Chicken	Intoxicants	Total calories	Deficiency	% of deficiency in calories
Kondasavara	1292	123	16	19	267	138	163	106	3900	2124	54.46
Savara	1181	121	28	24	163	176	196	123	3900	2012	51.58
Jatapu	1440	103	33	26	73	191	91	81	3900	2038	52.25

The percentage of gap in calorie intake and calorie intake per consumption unit is also shown in the same table. From the Table we can find that all the size class groups are deficient in their calorie intake indicating that all the tribals by this standard fall below the poverty line. Also it indicate that as the sizeclass group increased the deficiency in calorie intake has declined. But on an average there is deficiency in calorie

intake. It is an indication of under nutrition and this is not uncommon feature of any size class group. The magnitude of the gap varies from group to group and this is greater for Marginal and small farmers of both the tribes.

A major proportion of the calorie intake is derived from cereals like Rice, Ragi, Sarna, Uda, etc., and this can be seen from Table 3,

Table -3Percentage of calorie intake of various Farms

Tribe	Cereals	Pulses	Leafy vegetables	Vegetables	Oils	Sugar	Mutton pork, beef, Chicken,	Intoxicants	Total
Konda savara	70.36	5.32	2.07	1.67	2.63	8.26	6.07	4.63	100.00
Savara	72.62	5.46	1.37	1.21	1.72	8.13	5.12	4.72	100.00
J atapu	57.53	6.01	1.26	1.16	7.52	7.26	11.31	5.27	100.00



which presents the percentage deficiency in calorie intake for each item of food. More than 80 per cent of the intake in marginal farmers of both tribes is secured from cereals. More than 70 per cent of the calorie intake in the small farms is due to cereals like Rice, etc. About 60 per cent of the calorie intake in the remaining two farms is due to cereals. Calorie intake is further supplemented by items like pulses, oils, non-vegetarian food, etc. In the case of marginal farmers of both tribes pulses contribute very insignificant proportion of calories. Regarding Medium and large farmers more than 25 per cent of the calories are contributed by oils mutton & beef, chicken, pork and jaggery. About 5 per cent of the calories is secured by Intoxicants. Marginal farmers get 6 to 7 per cent of calories from non-vegetarian food and 6 per cent from intoxicants. Small farmers of both the tribes secured 10 to 15 per cent of calories from oils, mutton & beef, chicken, pork and jaggery. Broadly the calorie distribution patterns are varying among different farms across both the tribes.

An attempt is also made to examine the Protein intake of different farms. Protein is necessary to provide amino acids and nitrogen for the synthesis of body proteins and other biologically important nitrogenous constituents. Among adults dietary protein is needed to replace the endogenous loss consequent on passing of urine, excretion, body sweat, etc.. This endogenous loss is a minimum protein requirement for maintenance of the body is its normal condition. Growing children and pregnant and locating women and need additional protein to meet their increased requirements. The I.C.M.R. nutrition expert group in had recommended 1.0 grams protein/Kg body weight for an adult, the protein being derived from mixed vegetable source. The protein value of various items of food per consumption unit is worked out on the basis of the protein values given in "Recommended dietary intake for Indians" as recommended by the Indian Council of Medical Research New Delhi. The results are presented in Table 4.

**TABLE - 4**  
**Protein intake and percentage excess in proteins**

Tribe	Cereals	Pulses	Leafy vegetables	Vegetables	Oils	Sugar & Jaggery	Mutton pork, beef, Chicken,	Intoxicants	Total protein intake	Total protein requirement	Excess in protein	Percentage excess in protein
Kondasavara	33.72	5.46	2.80	2.16	2.12	0.14	15.23	1.07	62.70	55.00	7.70	12.28
Savara	41.36	7.62	2.63	2.21	0.72	0.17	16.17	1.32	72.2	55.00	17.20	23.82
Jatapu	40.21	8.13	2.52	2.17	10.16	0.19	16.26	1.71	81.35	55.00	26.35	32.39





All the groups consume proteins more than what they require. Besides the proteins the tribals get from cereals they are accustomed to eat beef and mutton, chicken, boar, pork etc., which supply a substantial proportion of more proteins. Marginal and small farmers of both the tribes secured proteins in very insignificant more proteins from oil. There is an indication of variation in protein consumption across farms and

tribes. Excessive consumption of protein i.e., found in the case of the top people consisting of medium and large farmers in comparison to the bottom layer consisting of marginal and small farmers.

The percentage intake of protein from each item of food size class group - wise is presented in Table 5.

**Table - 5**  
**Percentage of protein intake of various items of food**

Tribe	Cereals	Pulses	Leafy vege-Tables	Vege-tables	Oils	Sugar	Mutton pork, beef, Chicken,	Intoxi-cants	Total
Kondas avara	50.17	9.72	4.36	3.03	3.12	0.31	28.16	1.03	100.00
Savara	54.39	10.41	3.51	2.58	1.28	0.27	23.87	1.37	100.00
Jatapu	44.86	9.16	2.67	2.26	14.64	0.40	23.23	1.84	100.00

About 40 to 50 per cent of protein intake is secured by cereals for all the groups except marginal farmers. In case of marginal farmers of both the tribes more than 60 per cent of proteins is secured from cereals. For all the groups about 25 per cent of proteins is secured by non - vegetarian food i.e., mutton and beef, chicken and pork, etc. About 1.0 per cent of proteins is secured by pulses. In the case of medium and large farmers the percentage of proteins contributed by oils is more than 14 per cent. All the tribals get proteins mainly from cereals and non - vegetarian food. It is very interesting to note that the calorie intake of tribals by any size class group is far below that of

non - tribals in the plains area.

**Summary and Conclusion:**

The overall picture regarding health and nutrition indicate that the health and nutrition rate is very high among medium and large farms of both the tribes those who are living in plain areas. At the same time the health conditions are comparatively low among marginal and small farms of Konda Savara tribe who are living in hilly and remote areas. This is very important point on which the policy makers can give serious thought as part of overall improvement in the levels of living of the



tribal people. The analysis of family planning practices of the tribal households reveal that still the Konda Savara tribe and marginal farms needed more emphasis to promote family planning practices. Much emphasis may be given by the governmental and non-governmental agencies on providing more formal and informal learning facilities to Konda Savara tribe and marginal farms live in the hilly and remote areas to make more conversant with the health centers. The further promotion of health facilities will improve their levels of living.

Basic knowledge of health and hygiene have to be imparted to tribals through voluntary organizations in every village. As the tribal people including children and women suffer with a number of Nutritional deficiency diseases, ICDS schemes have to be introduced in all tribal villages / hamlets, settlements irrespective of their location, distance, size etc. The criteria and rules have to be relaxed in extending special nutrition programme to tribal children, pregnant and lactating mothers. The culinary habits and dietary pattern of all tribal communities have to be properly studied, analyzed and items or areas of nutritional deficiencies have to be carefully identified. Local dietary patterns, availability of low cost food items have to be taken into consideration while recommending nutritious diets to tribal clients. The extent of available health facilities in the Seethampeta mandal reveal that all the major indicators regarding Health are showing a positive trend. However, in the Seethampeta mandal the Health facilities are far less than that of the district. However the analysis relating to the developmental activities under taking by the ITDA indicates that ITDA is

putting strenuous efforts to promote the health facilities to the tribals in the scheduled areas of Srikakulam district.

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