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FOOD CONSUMPTION AND AVAILABLE NUTRIENTS IN THE SCHEDULED CASTE POPULATION OF KURNOOL DISTRICT, ANDHRA PRADESH

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ABSTRACT

The increasing pressure of population on land as well as precarious nature of agriculture in the drought prone areas have been accentuating the problem of undernourishment and malnutrition. It is not uncommon that the incidence of nutritional deficiency diseases is high in poor, vulnerable and downtrodden groups of population. The low standards of Nutrition leading to cause a variety of diseases like Goitre, Rickets, Anaemia, unsafe pregnancies, Beri-Beri, Pellagra, Scurvey, Fatigue, Colitis, Avitaminosis, Diarrhoea, Underweight, Conjunctivitis, Coronary heart diseases, defects in basic metabolism, slow pulse, lowered blood pressure, Suppression of menses in women, Dry, Coarse & cold skin, Insomnia, Osteoporosis Nutritional edema, Burning sensation in the feet and hands etc. It is now known that malnutrition may aggravate the clinical course of some infectious diseases. Thus, directly (or) indirectly both malnutrition and undernutrition accounts for a considerable part of the ill health among the population.In this context, an attempt is made here to study the consumption of food and available nutrients in the scheduled caste population of kurnool district, Andhra pradesh.

KEYWORDS: Consumption, Nutrients, Deficiency, Balanced Diet, Standard Requirement

INTRODUCTION

Study Area

Kurnool District is located in Rayalaseema Region of Andhra Pradesh between the northern latitudes of 14° 54' and 16° 25' and eastern longitudes of 76° 58' and 78° 25'. The geographical area of the district is 17,658 square kilometers. Administratively, the district consisting of 54 revenue mandals. The altitude of the district generally varies from 300 to 600 meters above mean sea level. The district is drained by Krishna, Tungabhadra, Kunderu and Hundri rivers. The normal rainfall of the district is 630 millimeters. About 49.26 percent of the total geographical area is under net sown area. Kurnool district has a total population of 35.29 lakhs according to 2001 census with 75 percent in rural areas. There are 965 females per 1000 males in the district. Workers community constitute 42.52 percent of the total population. About 53.2 percent of population are literates. It is noteworthy to mention the status of Scheduled Caste population as the study is related with Scheduled Caste population. Kurnool district is having about 17.81 percent of Scheduled Caste population to the total district population (2001 census). In actual numbers it constitute about 6,28,637. Among them 3,20,496 are males and 3,08,141 are females. Kurnool district has enormous deposits of limestone suitable for cement manufacture. Most of the industries are agro-based except cement and other mineral based industries like barites, white shale, yellow shale and steatite. Srisailam Hydel Power Project is another important industry in the district.

Available Nutrients in Kurnool District

To know the availability of nutrients in Kurnool District, data regarding to yield levels of food crops that are commonly consumed by the rural and poor people of the district such as Cereal crops (Paddy& Wheat), Major millets

(Jowar, Bajra, Maize and Ragi), Minor millets, Pulses (Red gram, Green gram, Black gram, Bengal gram, Cow gram), Spices and Condiments (Sugar cane, Chillies, Tamarind, Corrinder, Garlic, Turmeric, Zinger etc), Oil crops (Groundnut), Vegetables (Onions, Tomato, Potatoes, Sweet potatoes, Leaf Vegetables), Fruits (Banana) were taken for the analysis. Milk production and Flesh foods (Chicken, Mutton, Beef and Eggs) were also included in the study.

Data and Methodology Adopted

The per capita nutritional availability per day has been computed at district level by taking the triennial average of secondary data on the production of common food crops and their yield levels which are raised and consumed generally in the district as listed above. There are two methods of computation of nutritional availability in an area i.e., Food balance sheet method and Household food consumption survey. The present study is based on Food balance sheet method which was suggested by FAO (1957), Shafi (1960), Sukhatme (1962), Ramanaiah (2010) and the same was further adopted by many geographers. For the actual assessment of per capita nutritional availability per day, the following procedures have been taken into consideration for the preparation of actual food balance sheet for the Kurnool district.

Recognizing the importance of field survey in geographical studies, a micro level study has been carried out in 10 villages to understand the socio-economic background of Scheduled Caste population and their nutritional consumption, health status and utilization of health care facilities. The selection of villages was based on stratified random sampling method considering the physical and locational aspects and also the endemicity of diseases.

The sample villages are - Kurukunda (Atmakur mandal), Kadithota (Adoni mandal), Gorantla (Kodumur mandal), Kapatrala (Devanakonda mandal), Konapuram (Owk mandal), Pagidirai (Tuggali mandal), Regadagudur (Velgode mandal), Chapirevula (Nandyala mandal), R.S.Rangapuram (Bethamcherla mandal), E.Thandrapadu (Kurnool mandal) (Figure 5.1). The primary data is generated for 200 samples belong to Scheduled Caste population with a pretested and precoded schedule. From each of the 10 villages, 20 Scheduled Caste respondents were interviewed randomly at their households to get the required information. The socio - economic features of the total sample size of the district is as fallows . In terms of gender, the samples consist of 93 males and 107 females. Age wise, there is 1 sample with <20 years, 113 samples between 20-40 years, 60 samples between 40-60 years and 26 samples in the age group of >60 years. With regard to social status, there are 139 samples belong to Madiga community and the rest of 61 samples from Mala community.

Regarding to education, the sample size consists of considerable number (128) of illiterates which accounts to about 64% of the total samples. The rest comes under educated group i.e., 36 samples under primary education, 7 samples with upper primary education, 16 samples with high school education, 12 sample with Intermediate education and only one with graduate degree. In terms of income, most of the sample size (79.5%) falls under lower income group (<Rs/- 25000), 20 percent in moderate income group (Rs/- 25000-50000) and only one person in higher income group of >Rs/- 50000. The primary source for most of the sample population is Agriculture (46%) followed by wage labourers (23%), wage labourers cum petty business (22.5%) and the rest of the sample population (8.5%) earning their means through other sources. Of the total sample, 65 samples are landless, not owning even a single piece of land, 126 samples are owning some agricultural land to cultivate, 8 persons earning their livelihood through tenancy and only one person is both owner and a tenant. Regarding to amount of land owned, most of the Agricultural land owners (108) are owning <1 acre, 80 samples are having 1-3 acres of land and only 12 samples have more than 3 acres of land.

The type of house in which the sample population is inhabited also varies from village to village. Large number of sample population (168) is dwelling in government built houses under housing scheme and the remaining sample

population lives in single storied building (12), Brick walls with Thatched roof (1), mudwalls with Thatched roof (10) and Huts (9).

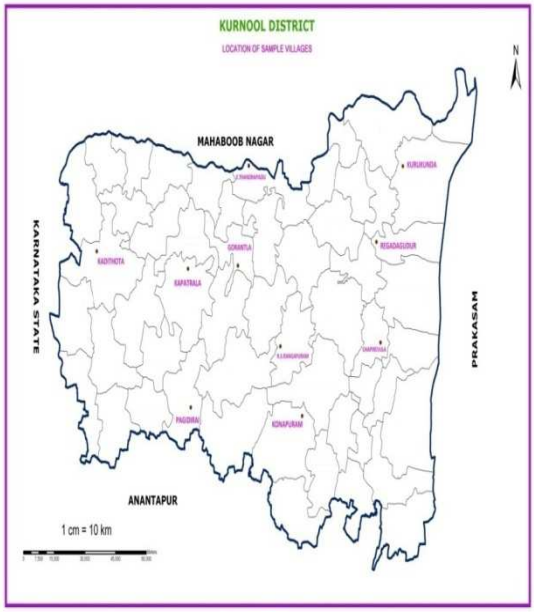

Figure 1

Consumption of Regular Foods and Available Nutrients in the Sample Population of Kurnool District

The consumption patterns of common foods which are cultivated and consumed generally in the district and their nutrient values have been studied in the Scheduled Caste population of sample villages.

Consuption of Cereals and Their Nutrients

In the sample population of Kurnool district, the consumption of cereals and their nutrients vary differently from one sample village to another. On the whole 62 percent of samples are consuming more than 410 gms/day/person, and about 32.5% are taking 270-410 gms/day/person, 3% of the Scheduled Caste samples are consuming 130-270 gms/day/person and the least consumption (<130 gms/day/person) is only by 2.5 % of sample population. It is clear that in Kurnool district, considerable size of sample population (62%) are consuming required quantity (400 gms) of cereals per day. If we look into the villages, individually, except in Konapuram, Kadithota and Gorantla, in the other seven villages, more than 60% of the sample population consuming >410 gms of cereals per day/person (Table-1). The levels of nutrients present in different amounts of cereals consumed by the Scheduled Caste population in the sample villages is given in the table -1.

Table 1: Consumption of Cereals in Sample Villages – Kurnool District (Per Day/Person)

S No	Name of the Village	(<50 Kgs/Year) <130 Gms		(50-100 Kgs/Year) 130-270 Gms		(100- 150 Kgs/Year) 270-410 Gms		(150-200 Kgs/Year) 410-540 Gms	
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	Kurukunda	-	-	-	-	4	20	16	80
2	Kadithota	-	-	1	5	12	60	7	35
3	Gorantla	1	5	-	-	12	60	7	35
4	Kapatrala	-	-	-	-	8	40	12	60
5	Konapuram	1	5	-	-	15	75	4	20
6	Pagidirai	2	10	-	-	3	15	15	75
7	Regadagudur	-	-	1	5	1	5	18	90
8	Chapirevula	1	5	1	5	2	10	16	60
9	R.S.Rangapuram	-	-	2	10	4	20	15	75
10	E. Thandrapadu	-	-	2	10	4	20	14	70
Total		**5**	**2.5**	**6**	**3.0**	**65**	**32.5**	**124**	**62.0**

Table 2: Nutrients Present in Different Quantities of Cereals Consumed by the Sample Population-Kurnool District

S.No	Quantities of Major Millets (Gms)	Total Energy (Calories)	Protein (Gms)	Fat (Gms)	Minerals (Gms)	Fibre (Gms)	CarboHydrates (Gms)	Calcium (Mg)	Iron (Mg)	Vit-A (Iu)	Thiamine (Mg)	Riboflavin (Mg)	Nicotanic Acid (Mg0	Vit-C (Mg)
1	130	446	12.3	1.8	2.2	1.4	96	37.7	9.5	63.7	0.4	0.2	4.0	-
2	270	926	25.5	3.8	4.6	2.9	199.3	78.3	19.7	132.3	0.8	0.4	8.4	-
3	410	1406	38.7	5.7	6.9	4.3	302.6	118.9	29.9	200.9	1.2	0.7	12.7	-
4	540	1852	51.0	7.6	9.2	5.7	398.5	156.6	39.4	264.6	1.6	0.9	16.8	-

Consumption of Major Millets and Their Nutrients

The consumption of major millets is noticed as insignificant among the sample population of the district compared to Rice and Wheat. About 58% of the samples are consuming only 55-109 gms/day, 38% taking 109-164 gms/day, 3.5% of sample population consuming only less than 55 gms/day and only 0.5% of samples are consuming more than 164 gms of major millets/day (Table -3). The status of nutrients present in different amounts of major millets consumed by the sample population is furnished in Table - 4.

Consumption of Minor Millets and Their Nutrients

Nearly more than half of the Scheduled Caste population (59.5%) of sample villages are consuming very minute quantities of minor millets i.e., 27-55 gms/day (Table -5). About 35 percent are taking 55-82 gms/day in their food, and only the remaining 5.5 percent samples are consuming more than 82 gms of minor millets. Table- 6 gives the composition of nutrients present in different amounts of minor millets consumed by the samples of Scheduled Caste population.

Consumption of Pulses and Grams and Their Nutrients

Regarding to the consumption of Pulses and Grams, relatively more number of samples (38%) consuming less than 28 gms of pulses and grams per day which is said to be very low compared to the standard requirement of 85 gms per day. About 20.5 % of Scheduled Caste people are taking only 28-55 gms per day, 23 per cent are consuming 55-82 gms per day and the remaining 22.5% population are consuming more 82 gms per day in their regular diets (Table -7).

The sample survey shows that more than 2/3^{rds} of Scheduled Caste population in the sample villages are not meeting the standard requirement of pulses and grams in their diet, which ultimately lead to protein deficiency diseases like stunting of growth, diarrhoea, discolouration and sparseness of hair, discolouration and peeling off of the skin, anaemia, swelling of the body and fatty liver. Children are more susceptible to protein deficiency. Table -8 furnishes the available nutrients in different amounts of pulses and grams consumed by the samples.

Consumption of Spices and Condiments and Their Nutrients

In the sample villages of Kurnool district, almost the entire sample size (94%) is below the standard requirement (57 gms) of spices and condiments with a consumption range of 27-55 gms/day (Table- 9). Only about 2 percent of sample size is taking more than 55 gms and the remaining 4 percent population is consuming less than 27 gms/day. The available nutrients in different amounts of spices and condiments consumed by the sample population is given in Table -10.

Consumption of Oils and Their Nutrients

If we look into the Oil consumption among sample population, unfortunately, the entire sample size is below the mark of standard requirement (57 gms) of oils in their diets (Table-11). About 79.5

Table 3: Consumption of Major Millets in Sample Villages – Kurnool District (Per Day/Person)

S No	Name of the Village	(<20 Kgs/Year) <55 Gms		(20-40 Kgs/Year) 55-109 Gms		(40- 60 Kgs/Year) 109-164 Gms		(>60 Kgs/Year) >164 Gms	
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	Kurukunda	6	30	14	70	-	-	-	-
2	Kadithota	-	-	7	35	-	-	-	-
3	Gorantla	-	-	9	45	1	5	1	5
4	Kapatrala	-	-	2	10	-	-	-	-
5	Konapuram	-	-	9	45	-	-	-	-
6	Pagidirai	-	-	15	75	-	-	-	-
7	Regadagudur	1	5	18	90	1	5	-	-
8	Chapirevula	-	-	20	100	-	-	-	-
9	R.S.Rangapuram	-	-	13	65	7	35	-	-
10	E. Thandrapadu	-	-	9	45	11	55	-	-
Total		**7**	**3.5**	**116**	**58**	**76**	**38**	**1**	**0.5**

Table 4: Nutrients Present in Different Quantities of Major Millets Consumed by the Sample Population-Kurnool District

Sno	Quantities of Major Millets (Gms)	Total Energy (Calories)	Protein (Gms)	Fat (Gms)	Minerals (Gms)	Fibre (Gms)	Carbohydrates (Gms)	Calcium (Mg)	Iron (Mg)	Vit-A (Iu)	Thiamine (Mg)	Riboflavin (Mg)	Nicotanic Acid (Mg0	Vit-C (Mg)
1	55	189	5.6	1.7	1	1.3	38.5	57.9	5.4	247.5	0.2	0.1	1	-
2	109	375	11	3.27	2	2.5	76	114.7	10.8	490.5	0.4	0.2	2	-
3	164	564	16.6	4.9	3	3.7	114.8	172.61	16	738	0.6	0.3	3.1	-

Table 5: Consumption of Minor Millets in Sample Villages – Kurnool District (Per Day/Person)

Sno	Name of the Village	(10-20 Kgs/Year) 27-55 Gms		(20-30 Kgs/Year) 55-82 Gms		(>30kgs/Year) >82 Gms	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
1	Kurukunda	20	100	-	-	-	-
2	Kadithota	19	95	1	5	-	-
3	Gorantla	20	100	-	-	-	-
4	Kapatrala	20	100	-	-	-	-
5	Konapuram	19	95	1	5	-	-
6	Pagidirai	3	15	12	60	5	25
7	Regadagudur	11	55	8	40	1	5
8	Chapirevula	4	20	16	80	-	-
9	R.S.Rangapuram	2	10	17	85	1	5
10	E. Thandrapadu	1	5	15	75	4	20
Total		**119**	**59.5**	**70**	**35**	**11**	**5.5**

Table 6: Nutrients Present in Different Quantities of Minor Millets Consumed by the Sample Population-Kurnool District

Sno	Quantities of Major Millets (Gms)	Total Energy (Calories)	Protein (Gms)	Fat (Gms)	Minerals (Gms)	Fibre (Gms)	Carbohydrates (Gms)	Calcium (Mg)	Iron (Mg)	Vit-A (Iu)	Thiamine (Mg)	Riboflavin (Mg)	Nicotanic Acid (Mg0	Vit-C (Mg)
1	27	89	3	1.2	0.9	2.2	16.4	8.4	3.5	14.6	0.2	0.2	0.2	-
2	55	182	6.8	2.4	1.8	4.4	33.5	17.1	7.1	29.7	0.3	0.4	0.4	-
3	82	271	10.1	3.5	2.7	6.6	49.9	25.4	10.6	44.3	0.5	0.7	0.6	-

Table 7: Consuption of Pulses & Grams in Sample Villages of Kurnool District (Per Day/Person)

S No	Name of the Village	(< 10 Kgs/Year) <28 Gms		(10-20 Kgs/Year) 28-55 Gms		(20-30 Kgs/Year) 55-82 Gms		(>30 Kgs/Year) >82 Gms	
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	Kurukunda	10	50	10	50	-	-	-	-
2	Kadithota	11	55	9	45	-	-	-	-
3	Gorantla	14	70	6	30	-	-	-	-
4	Kapatrala	17	85	3	15	-	-	-	-
5	Konapuram	16	80	4	20	-	-	-	-
6	Pagidirai	-	-	-	-	12	60	8	40
7	Regadagudur	-	-	-	-	8	40	12	60
8	Chapirevula	-	-	4	20	7	35	9	45
9	R.S.Rangapuram	-	-	2	10	11	50	7	35
10	E. Thandrapadu	-	-	3	15	8	40	9	45
Total		**68**	**34**	**41**	**20.5**	**46**	**23**	**45**	**22.5**

Table 8: Nutrients Present in Different Quantities of Pulses Consumed by the Sample Population-Kurnool District

Sno	Quantities of Major Millets (Gms)	Total Energy (Calories)	Protein (Gms)	Fat (Gms)	Minerals (Gms)	Fibre (Gms)	Carbohydrates (Gms)	Calcium (Mg)	Iron (Mg)	Vit-A (Iu)	Thiamine (Mg)	Riboflavin (Mg)	Nicotanic Acid (Mg0	Vit-C (Mg)
1	28	96	6	0.4	0.9	0.8	16.4	40.6	2.5	40	0.1	0.1	0.6	0.2
2	55	189	12.4	0.8	1.8	1.5	32.2	79.8	4.8	79	0.3	0.2	1.1	0.4
3	82	282	18.5	1	2.7	2	47.9	118.9	7	118.1	0.4	0.3	1.6	0.5

Table 9: Consumption of Spices & Condiments by Sample Villages – Kurnool District (Per Day/Person)

Sno	Name of the Village	(<10kgs/Year) <27 Gms		(10-20 Kgs/Year) 27-55 Gms		(>20 Kgs//Year) >55 Gms	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
1	Kurukunda	-	-	20	100	1	5
2	Kadithota	-	-	20	100	2	10
3	Gorantla	1	5	19	95	-	-
4	Kapatrala	-	-	20	100	-	-
5	Konapuram	1	5	19	95	-	-
6	Pagidirai	2	10	18	90	-	-
7	Regadagudur	-	-	20	100	-	-
8	Chapirevula	2	10	18	90	-	-
9	R.S.Rangapuram	1	5	19	95	-	-
10	E. Thandrapadu	-	-	-	-	1	5
Total		**7**	**3.5**	**193**	**96.5**	**4**	**2**

Table 10: Nutrients Present in Different Quantities of Spices & Condiments Consumed by the Sample Population-Kurnool District

Sno	Quantities Of Major Millets (Gms)	Total Energy (Calories)	Protein (Gms)	Fat (Gms)	Minerals (Gms)	Fibre (Gms)	Carbohydrates (Gms)	Calcium (Mg)	Iron (Mg)	Vit-A (Iu)	Thiamine (Mg)	Riboflavin (Mg)	Nicotanic Acid (Mg0	Vit-C (Mg)
1	27	52	1.6	1.0	0.6	22.9	9.0	65	2	103.9	0.1	0.1	0.5	6.3
2	55	106	3.2	2.0	1.3	4.7	18.6	133	4	211.8	0.1	0.1	1.1	12.8

Table 11: Consumption if Oils & Ghee by Sample Villages in Kurnool District (Per Day/Person)

Sno	Name of the Village	(<5 Kgs/Year) <14 Gms		(5-10 Kgs/Year) 14-27 Gms		(10-15 Kgs/Year) >27-41	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
1	Kurukunda	-	-	1	5	19	95
2	Kadithota	-	-	3	15	17	85
3	Gorantla	-	-	4	20	16	80
4	Kapatrala	-	-	9	45	11	55
5	Konapuram	1	5	9	45	10	50
6	Pagidirai	1	5	5	25	14	70
7	Regadagudur	-	-	2	10	18	90
8	Chapirevula	-	-	2	10	18	90
9	R.S.Rangapuram	-	-	2	10	18	90
10	E. Thandrapadu	-	-	2	10	18	90
Total		**2**	**1.0**	**39**	**19.5**	**159**	**79.5**

Table 12: Nutrients Present in Different Quantities of Oils & Ghee Consumed by the Sample Population-Kurnool District

Sno	Quantities of Major Millets (Gms)	Total Energy (Calories)	Protein (Gms)	Fat (Gms)	Minerals (Gms)	Fibre (Gms)	Carbohydrates (Gms)	Calcium (Mg)	Iron (Mg)	Vit-A (Iu)	Thiamine (Mg)	Riboflavin (Mg)	Nicotanic Acid(Mg0	Vit-C (Mg)
1	14	77	3.7	5.6	0.3	0.4	2.8	7	0.2	8.8	0.1	0.04	1.9	-
2	27	148	7.0	10.8	0.5	0.8	5.5	13.5	0.4	17	0.2	0.1	3.8	-
3	41	225	10.9	16.5	0.8	1.3	8	2.1	0.7	25.8	0.4	0.1	5.8	-

Percent of the sample population is consuming 27-41 gms of oil per day/person, 19.5% are in the range of 14-27 gms and the remaining 1 percent is almost insignificant in the consumption of oils and Ghee. Table -12 give the composition of nutrients present in different amounts of oils consumed by the samples of Scheduled Caste population.

Consumption of Vegetables and Their Nutrients

The consumption of vegetables in all the sample villages is far distant from the standard requirement of 284 gms/day (Table -13). About 5.5 percent of the sample population is consuming less than 55 gms/day, 30.5% of sample is in the range of 55-82 gms/day, 60.5% are in the range of 82-110 gms/day and the rest of the respondents are consuming more than 110 gms per day. The survey reveals that the sample population is consuming very limited quantities of vegetables in their regular diets which is very much disappointing from health point of view. Table - 14 gives the information about nutrients present in different quantities of vegetables consumed by the sample population.

Consumption of Fruits and Their Nutrients

In the Scheduled Caste population of sample villages, Fruit consumption is very much limited, mostly confined to Bananas and this is also below the standard requirement (85 gms/day) of a balanced diet. Nearly 2/3^{rds} of sample population comes in the range of 41-55 gms of fruits consumption per day (Table - 15). About 23 percent of sample is consuming 27-41 gms per day, 1% is taking less 27 gms and only 0.5 percent is consuming more than 55 gms per day. Since the consumption is mostly confined to Bananas in the sample population, the composition of nutrients in different quantities of Banana is computed only for Banana fruits in the Table -16.

Consumption of Milk & Milk Products and Their Nutrients

In the sample villages of Kurnool district, hardly Scheduled Caste population consume milk and milk products. It is a distant dream to reach out the standard requirement of 284 gms/day for these poor and backward groups of society. About 91.5 percent of sample size of Kurnool district falls in 82-164 gms range of milk consumption per day (Table -17), 7 percent of sample consuming less than 82 gms/day and only 1.5% are taking more than 164 gms/day of milk and milk products. During survey, it is revealed that only buffalo milk is consumed in the sample villages. So, the nutrient composition is computed only for Buffalo milk and products for different quantities consumed by sample population in Table -18.

Consumption of Flesh Foods and Their Nutrients

With regard to consumption of flesh foods in the sample villages of Kurnool district, it is revealed that most of the people consume only Beef. Hardly they go for other flesh foods like fish, eggs, chicken and mutton, so the nutrient composition is computed only for Beef and related products. Though the sample population consume mostly beef and related products, their consumption levels are not to the required mark (85 gms/day) of balanced diet. About 20 per cent of population are in the range of 14-27 gms per day, 69.5% in the range of 27-41 gms/day and the remaining sample population of 10.5 per cent falls in the range of 41-55 gms/day (Table -19). The following table -20 furnishes the nutrient composition of above said quantities of flesh foods consumed by the Scheduled Caste people of sample villages.

Table 13: Consumption of Vegetables in Sample Villages- Kurnool District (Per Day/Person)

Sno	Name of the Village	(>20kgs/Year) <55 Gms		(20-30 Kgs/Year) 55-82 Gms		(20-30 Kgs/Year) 82-110 Gms		(>40 Kgs/Year) >110 Gms	
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	Kurukunda	-	-	6	30	13	65	1	5
2	Kadithota	1	5	6	30	13	65	-	-
3	Gorantla	1	5	7	35	12	60	-	-
4	Kapatrala	-	-	7	35	13	65	-	-
5	Konapuram	1	5	16	90	3	15	-	-
6	Pagidirai	2	10	2	10	14	70	2	10
7	Regadagudur	1	5	6	30	13	65	-	-
8	Chapirevula	2	10	2	10	14	70	2	10
9	R.S.Rangapuram	1	5	6	30	13	65	-	-
10	E. Thandrapadu	2	10	3	15	13	65	2	10
Total		**11**	**5.5**	**61**	**30.5**	**121**	**60.5**	**7**	**3.5**

Table 14: Nutrients Present in Different Quantities of Vegetables Consumed by the Sample Population-Kurnool District

S No	Quantities of Major Millets (Gms)	Total Energy (Calories)	Protein (Gms)	Fat (Gms)	Minerals (Gms)	Fibre (Gms)	Carbohydrates (Gms)	Calcium (Mg)	Iron (Mg)	Vit-A (Iu)	Thiamine (Mg)	Riboflavin (Mg)	Nicotanic Acid(Mg0	Vit-C (Mg)
1	55	40	0.8	0.07	0.4	0.3	8.9	31.6	0.6	51	0.4	0.01	0.4	11.6
2	82	59	1	0.1	0.5	0.5	13	47	0.8	76	0.7	0.01	0.6	17
3	110	79	1.7	0.1	0.7	0.7	17.9	57.5	1	102	0.9	0.02	0.7	23

Table 15: Consumption of Fruits in Sample Villages – Kurnool District (Per Day/Person)

Sno	Name of the Village	(<10 Kgs/Year) <27 gms		(10-15 Kgs/Year) 27-41 gms		(15-20 Kgs/Year) 41-55 gms		(>20 Kgs/Year) >55 Gms	
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	Kurukunda	-	-	3	15	17	85	-	-
2	Kadithota	1	5	9	45	10	50	-	-
3	Gorantla	1	5	2	10	16	80	1	5
4	Kapatrala	-	-	8	40	12	60	-	-
5	Konapuram	-	-	11	55	9	45	-	-
6	Pagidirai	-	-	4	20	16	80	-	-
7	Regadagudur	-	-	5	25	15	75	-	-
8	Chapirevula	-	-	-	-	20	100	-	-
9	R.S.Rangapuram	-	-	3	15	17	85	-	-
10	E. Thandrapadu	-	-	1	5	19	95	-	-
Total		**2**	**1.0**	**46**	**23**	**151**	**75.5**	**1**	**0.5**

Table 16: Nutrients Present in Different Quantities of Fruits Consumed by the Sample Population-Kurnool District

S No	Quantities of Major Millets (Gms)	Total Energy (Calories)	Protein (Gms)	Fat (Gms)	Minerals (Gms)	Fibre (Gms)	Carbohydrates (Gms)	Calcium (Mg)	Iron (Mg)	Vit-A (Iu)	Thiamine (Mg)	Riboflavin (Mg)	Nicotanic Acid (Mg0	Vit-C (Mg)
1	27	31	0.3	0.02	0.2	-	6.7	2.7	0.1	33.5	0.01	0.04	0.08	1.6
2	41	47	0.6	0.04	0.3	-	10	4.1	0.2	50.9	0.02	0.06	0.1	2.5
3	55	63	0.6	0.05	0.4	-	13.6	5.5	0.3	68	0.03	0.09	0.2	3

Table 17: Consumption Milk & Milk Products in Sample Villages of Kurnool District (Per Day/Person)

S No	Name of the Village	(<3 Kgs/Year) <82 Gms		(3-6 Kgs/Year) 82-164 Gms		(>6 Kgs/Year) >164 Gms	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
1	Kurukunda	1	5	19	95	-	-
2	Kadithota	2	10	17	85	1	5
3	Gorantla	1	5	18	90	1	5
4	Kapatrala	1	5	19	95	-	-
5	Konapuram	2	10	18	90	-	-
6	Pagidirai	1	5	18	90	1	5
7	Regadagudur	4	20	16	80	-	-
8	Chapirevula	2	10	18	90	-	-
9	R.S.Rangapuram	0	-	20	100	-	-
10	E. Thandrapadu	0	-	20	100	-	-
Total		**14**	**7**	**183**	**91.5**	**3**	**1.5**

Table 18: Nutrients Present in Different Quantities of Milk Consumed by the Sample Population-Kurnool District

S No	Quantities of Major Millets (gms)	Total Energy (Calories)	Protein (gms)	Fat (gms)	Minerals (Gms)	Fibre (Gms)	Carbohydrates (Gms)	Calcium (Mg)	Iron (Mg)	Vit-A (Iu)	Thiamine (Mg)	Riboflavin (Mg)	Nicotanic Acid (Mg0	Vit-C (Mg)
1	82	97	3.5	7.2	-	-	4.2	172.2	0.2	131	0.03	0.08	0.08	2.5
2	164	194	7.1	14.4	-	-	8.4	344.4	0.3	262	0.06	0.2	0.2	4.9

Table 19: Consumption Flesh Foods in Sample Villages of Kurnool District (Per Day/Person)

S No	Name of the Village	(5-10 Kgs/Year) 14-27 gms		(10-15 Kgs) 27-41 gms		(15-20 Kgs) 41-55 gms	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
1	Kurukunda	3	15	16	80	1	5
2	Kadithota	3	15	12	60	5	20
3	Gorantla	3	15	11	55	6	20
4	Kapatrala	3	15	15	75	2	10
5	Konapuram	8	40	11	55	1	5
6	Pagidirai	5	25	14	70	1	5
7	Regadagudur	3	15	16	80	1	5
8	Chapirevula	3	15	16	80	1	5
9	R.S.Rangapuram	7	35	12	60	1	5
10	E. Thandrapadu	2	10	16	80	2	10
Total		**40**	**20**	**139**	**69.5**	**11**	**10.5**

Table 20: Nutrients Present in Different Quantities of Flesh Foods Consumed by the Sample Population-Kurnool District

S No	Quantities of Major Millets (Gms)	Total Energy (Calories)	Protein (Gms)	Fat (Gms)	Minerals (Gms)	Fibre (Gms)	Carbohydrates (Gms)	Calcium (Mg)	Iron (Mg)	Vit-A (Iu)	Thiamine (Mg)	Riboflavin (Mg)	Nicotanic Acid (Mg0	Vit-C (Mg)
1	14	16	3.2	0.4	0.2	-	-	1.4	0.1	8.4	0.02	0.005	0.9	0.3
2	27	6	6	0.7	0.3	-	-	2.7	0.2	16.2	0.04	0.01	1.7	0.5
3	41	9.3	9.3	1.1	0.4	-	-	4.1	0.3	24.6	0.06	0.01	2.6	0.8
4	55	12.3	12.4	1.4	0.6	-	-	5.5	0.4	33	0.08	0.2	3.5	1.1

As concluding remarks regarding to the consumption of foods and their nutrient composition in Scheduled Caste population of Kurnool district, the scenario is said to be very unhealthy and far distant to the required levels of balanced diet. Except cereal consumption, the other foods are being consumed in very meagre quantities. The analysis revealed that, the food consumed is more carbohydrate rich and poor in all other nutrients. People are undernutritioned in terms of proteins, fats, calcium, Iron and Vitamins. Poor levels of literacy, annual Income and social status is reflecting clearly on the nutrient levels of Scheduled Caste population of the district. The welfare programmes of the Government and non governmental agencies should be generated and developed in this direction to mitigate the undernutrition problem and to reach out the levels of Balanced diet.

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