



## Mid Day Meal Programme : Implementation in Tribal Areas of East Godavari District

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### ABSTRACT

Mid Day Meal programme was implemented by the Government of Andhra Pradesh in schools since 2003 in 22 districts to provide nutrition and encourage education to children. A survey was conducted to study the implementation of mid day meal in tribal areas of East Godavari district using observation checklist and interview schedules. The results have shown that the mid day meal programme is properly implemented in tribal areas. All the children are covered under the programme in majority of the schools. The quality of food provided for children is not good. Milk and fruits are totally omitted in mid day meals. The nutritional status of the tribal children studied is much below the reference value.

**Key words :** Mid Day Meal Programme, Tribal Area

Mid Day Meal programme is the largest school nutritional programme in the world covering 12 crore children in more than 9.5 lakh primary schools. The scheme provides a hot cooked meal of minimum 450 calories and 12 g of protein. In Andhra Pradesh the scheme is to cover 75 lakh students across 60,000 schools in all the districts.

In consonance with the judgement, Government of Andhra Pradesh has taken a decision to implement the Mid Day Meal from 2<sup>nd</sup> January 2003 in 22 districts. This was a project to combat classroom hunger, fight malnutrition, encourage education and reduce child labour. This programme was initiated to provide basic nutrition to children and encourage parents to send their children to school. The scheme has been revised in June, 2006 to ensure the provision of mid day meal of adequate nutritive value and provide additional Central Support to State/ Union territories.

The important relationship of sound nutrition and learning has also long been established. Even today 94 percent of children in the age group 6 to 9 years are moderately or severely under weight (Deodhar *et. al*, 2005)

Padmalatha (2006) reported that school authorities say and records show that while enrolment has not been substantially improved as a result of mid day meal programme, school attendance has certainly gone up by 10-12 percent. However, there is still plenty of room for improvement in the management of the scheme.

Vineeta (2007) expressed that mid day meal not only fills children's empty stomachs but

also save them from starvation and malnutrition. For many children, it is the only meal for day. MDM save the girls from the pain of cooking at home and an opportunity to eat an egg which usually goes to brother's plate at home.

Enrolment for girls has improved more significantly than boys. School attendance rate has improved by 8.2 percent in Jaipur (Nielsen, 2007). Mid-day meal programme has reduced the dropouts and improved the retention rates in all higher classes. Around 85 percent of heads of the institutes and teachers reported that classroom performance has improved for all children.

### MATERIAL AND METHODS

The study was conducted in 30 selected schools from 3 mandals i.e. Rampachodavaram, Addateegala and Devipatnam of East Godavari District in Andhra Pradesh. The total sample consisted of 60 children (30 boys and 30 girls). Random sampling technique was used to select the sample. An observation technique was used to study the infrastructure and other facilities provided for the mid day meal programme. The data is tabulated and analyzed using percentages.

### RESULTS AND DISCUSSION

The results of the study are discussed under the following sub heads.

#### a. Infrastructure available for implementation of MDM programme

The study revealed that only 60 percent of the schools were sanctioned kitchen sheds for cooking

while in rest 40 percent of the schools, mid-day meal is cooked in cook's house. In 90 percent of the schools, rice and other provisions are stored in office rooms or in a corner of the classroom whereas in 10 percent of the schools the rice and provisions are stored in cook's house.

The kitchen utensils for mid-day meals are supplied from Girijan Co-operative Corporation (GCC) to all the schools by recovering 0.25 paise per child from the amount sanctioned for provisions till the total amount was recovered. But in only 83.3 percent of the schools the cooking utensils are adequate. In the rest 26.6 percent of the schools, the kitchen utensils are borrowed from nearby anganwadi centers or welfare hostels and in some schools cook's personal utensils are being used. In all the schools, the source of drinking water is hand pump and method of cooking is fire wood chulah. The school premises and the kitchen are maintained neatly.

Table: 1: Mid-Day Meal coverage in schools:

S.No	Children covered by MDM	No of Schools
1	100%	24 (80.0)
2	95-99%	5 (16.6)
3	90-94%	1(3.33)

The table indicates that in only 80 percent of the schools, all the children are consuming mid-day meal. In the remaining 20 percent of the schools, some children did not consume mid day meal. The reasons explained are poor quality of rice, higher caste and economic status.

#### b. Information on food

For mid day meal programme, the rice is supplied to all the schools by Girijan Co-operative Corporation (GCC). For the other provisions the funds are supplied by the government at the rate of Rs.2.50 if the children are below 50. If the number is 50-100 Rs. 2.25 per child is issued while it is Rs. 2.00 if the number of children is more than 100. Mid day meal is given to the children on all the six working days. In almost all the schools, a fixed menu is followed except for some minor changes depending on cook's convenience and local availability of vegetables.

It was observed that the seasonal vegetables like brinjal, bottle gourd, drumsticks and potato were used in mid day meals. In two schools meal maker was added in the curry. In all the schools, egg was given twice a week. In some schools, where there was no transport facility, sweets were given instead of eggs. In one school, occasionally on the request of children, instead of two eggs per week, chicken

was given once in a week. During epidemics like bird flu and when the cost of egg is too high, fruit was given instead of egg. Occasionally on Saturdays, instead of sambar and rice, pulihora is served to break the monotony in the menu.

Though the rice supplied is 120g per child per day, enough quantity of food is served to each child depending on the child's requirement. Teachers report that tribal children eat more quantity of food compared to non-tribal children. But the quantity of rice is adjusted because the younger children eat comparatively less quantity of food. Except in 8 schools, all the children consumed mid day meal even when they are sick but do not consume egg when they have jaundice.

Among 30 schools, only 4 schools had plates and glasses. Plates were donated by the school management in an aided school. In 2 schools of Rampachodavaram mandal they were given by donors and in ST colony, Addateegala, plates were donated by B.Ed trainee teachers. Children in the other schools get their plates from home.

In all the schools, verandah is cleaned neatly before and after having the food. They are seated in a row and after chanting prayer children eat the food. Head master and teachers monitor the children so that they do not waste the food.

Though the rice supplied for mid day meal is new rice and quality not being so good, rice was cooked with out becoming sticky by using the rice strainers. It is a wrong practice as the water soluble vitamins are lost in strained kanji. The quantity of vegetables used in sambar was very less. Only in two schools green leafy vegetables were used. In all the other schools, nutritious vegetables like carrots, beans and green leafy vegetables were completely missing in the menu.

#### c. Effect of mid day meal on the physical development of the children

For assessing the physical development of the children heights and weights of 60 children (30 boys and 30 girls) were recorded. The selected children age range was between 8-11 years. The average of heights and average of weights were calculated and compared to the reference heights and weights of the concerned group.

With reference to heights, the difference between the reference value and the sample value was more among boys compared to girls. This indicates that though they appear healthy, their growth is not up to the standard (Figure-1). There is greater need to provide nutritious diet compared to what is provided now as quoted by the study done by Padmalatha (2006).

Table 2. Weekly menu for mid day meal

Day of the week	Item-1	Item-2	Item-3
Monday	Rice	Vegetable curry	Rasam
Tuesday	Rice	Sambar	Egg
Wednesday	Rice	Vegetable curry	Rasam
Thursday	Rice	Sambar	-
Friday	Rice	Sambar	Egg
Saturday	Rice	Sambar	-

Table 3. Anthropometric measurements of children in comparison with reference measurements

Age	Gender	Height( Cms)			Weight( Kg)		
		Reference	Sample average	Difference	Reference	Sample average	Difference
8 Yrs	Boys	127.9	118.5	9.4	26.1	19.2	6.89
	Girls	127.2	121.2	6.0	26.0	17.5	8.5
9 yrs	Boys	133.3	119.8	13.5	29.2	20.3	8.89
	Girls	132.5	124.0	8.42	29.0	21.4	7.6
10 yrs	Boys	138.0	122.5	15.5	31.0	21.5	9.5
	Girls	138.2	126.2	12.0	32.6	23.1	9.5
11 yrs	Boys	142.7	127.2	15.5	34.0	24.0	10.0
	Girls	145.1	128.0	17.1	36.6	23.0	13.3

Table 4. Recommended balanced diet for children compared to the actual intake

S.No	Food Group	Recommended Intake per day				Actual Intake in MDM
		5-6 yrs	7-9 yrs	10-12 years		
				Girls	Boys	
1	Cereals & millets	210	270	270	330	120
2	Pulses	45	60	60	60	15
3	Milk	500	500	500	500	-
4	Roots & tubers	100	100	100	100	17(approx)
5	Greens	50	100	100	100	-
6	Other vegetables	100	100	100	100	10(approx)
7	Fruits	100	100	100	100	-
8	Fats and oils	25	25	25	25	5

With reference to weights, the difference between the sample average reference weights increased as the child's age increased (Figure-2) but there was no considerable difference between boys and girls which is in agreement with the results of Deodhar (2005). The vast difference between reference weights and sample average weights indicate that there is a need to provide a qualitative and healthy diet for the tribal school children more so for girl children.

The prescribed quantity of provisions supplied per child per day is compared with the quantities in the ICMR recommended balanced diets for different age groups. Among the foods prescribed in balanced diet, milk and fruits are totally omitted in mid day meals. Regarding cereals and millets, for 5-6 years children mid day meal is meeting little more than half of the recommended quantity but for older children especially boys, it is not even meeting 40 percent of the recommended requirement. It is still worse with pulses as the mid day meal is catering only one-fourth of the recommended requirement for the older children. For younger children also it is less than half of the recommended intake.

Regarding roots and tubers, the recommended intake is 100 g per day while the intake is approximately 100g per week through mid day meal. Greens are completely absent in the menu in many schools except in two schools where amaranthus is added in sambar. In one school where the teachers informed that they cook dhal with greens once in a week.

Regarding the other vegetables, the difference between the recommended in take and actual in take is very high. ICMR has recommended 50grams for younger children and 100 g for older children where as the intake is approximately 10grams per day.

This is because the 1 or 2 kg of vegetables added in sambar is divided among total children. So the intake of vegetables is very less. ICMR has recommended 25grams of oil per day. But the children are getting 5grams per day which is very less compared to the recommended in take.

## CONCLUSIONS

The implementation of mid day meal programme is good in tribal areas of East Godavari district but there is a need to improve the quality of food as it is not meeting the nutritional requirements of the children

Another important observation is that the participation of community is very less in the implementation of the programme.

To meet the important objective of mid day meal i.e to meet the nutritional requirement of the undernourished children, there is a great need to increase the funds for MDM.

Though mid day meal programme has improved the growth and health status of growing children, still there is a need to improve the quality of food to meet the reference standards of ICMR.

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