



EVALUATION STUDY
MID DAY MEAL AND EMERGENCY FEEDING PROGRAMME
under
REVISED LONG TERM ACTION PLAN
(RLTAP)

On behalf of
Planning & Coordination Department
Government of Orissa

D. J. Research & Consultancy Pvt. Ltd.
N 1/69, IRC Village, Nayapalli, Bhubaneswar-15, Orissa
Website: www.djrc.org



Final Report

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Abbreviations

ACA	Additional Central Assistance
APL	Above Poverty Line
AWC	Anganwadi Centre
BDO	Block Development Officer
BPL	Below Poverty Line
CDPO	Child development Project Officer
CES	Centre of Equity Studies
CMNNMP	Chief Ministers Nutritious Noon Meal Programme
DSWO	District Social Welfare Officer
EFP	Emergency Feeding Programme
FCI	Food Corporation of India
GP	Gram Panchayat
ICDS	Integrated Child Development Scheme
MDM	Mid Day Meal
NGO	Non Government Organisation
NP-NSPE	National Programme of Nutritional Support to Primary Education
RDA	Recommended Dietary Allowance
RLTAP	Revised Long Term Action Plan
SC	Scheduled Caste
SEO	Social Education Organiser
SHG	Self Help Group
SSA	Sarva Shiksha Abhiyan
ST	Scheduled Tribe
W & CD	Women and Child Development Department

EXECUTIVE SUMMARY

MID-DAY MEAL SCHEME

This summary is based on findings of evaluation survey conducted in 48 primary schools in 25 Blocks of KBK districts. The primary survey data were supplemented by secondary data obtained from schools, blocks, districts and the Government. Randomness in selection and thorough probing by the research team helped to provide objective analysis about the programme impact.

A recent survey¹ indicates that in Orissa nutritional deficiency in respect of children, both boys and girls, is very high. In comparison to recommended level (RDA), the deficit in calorie consumption is 29% for boys and 27% for girls in 4-6 age-group; 25% and 24% respectively for boys and girls in 7-9 age group and 24% and 14% for boys and girls respectively in the 10-12 age group. The deficit is much higher in respect of KBK region as well as for certain districts within this region. Malkangiri, as an example, has the highest deficit i.e. 59% for boys in 4-6 age group, 43% for boys and 45% for girls of 7-9 age group and 38% and 31% deficits for boys and girls respectively in the age group of 10-12 years.

ICMR (Indian Council of Medical Research) study also provides data on protein and other nutrient deficiency in relation to recommended doses in Orissa as well as districts in KBK region. It shows the high deficiency percentage in relation to recommended doses in almost all districts of KBK both in respect of girls and boys. All these indicate the vulnerability of children to nutritional deficiency and related infections and the need for a programme to supplement calorie and other specific nutrition.

Increase in Enrollment: There has been substantial increase in enrolment in KBK primary schools since the inception of the programme. While in Orissa the enrolment has increased by only 34%, in KBK it has gone up by 68% indicating the extent to which enrolment objective of the programme has been achieved. At inception of the scheme the total enrolment in primary schools in Bolangir district was 1.5 lakh, which increased to nearly 2 lakh by the year 2004-05, a 32% increase. In Koraput and

¹ National Institute of Nutrition, ICMR, Hyderabad (2002), 'Nutrition Profile of Community, Orissa'.

Malkangiri there has been a substantial change in enrolment between 1995-96 and 2004-05 by 134% and 103% respectively.

Decrease in Drop-out Rate: To check the dropout rate is another objective of the MDM scheme. Mid-day meal provides, among other facilities, the incentive for the primary school children not to drop out from school. During the last ten years since the introduction of MDM in 1995/6 the drop out rate has steadily decreased in Orissa. This rate for boys, girls, and for both which was 51%, 52%, and 52% respectively in the year 1995-96 has come down to 31% for boys, 33% for girls, and 32% for both.

It is found that the dropout rate since inception of the scheme has also decreased in KBK districts as a whole. This decrease in dropout rate is particularly noticeable in Bolangir, Rayagada and Sonepur. In Bolangir, for example, the dropout rate of boys, girls, and for both was 52%, 58%, and 55% respectively at MDM scheme inception year 1995-96. These rates have decreased to 28%, 30%, and 29% in 2004-05. In case of Koraput district while there was a high rate of decrease up to 2003-04, a disturbing fact is the sudden increase in the dropout rate in the year 2004-05. In case of Rayagada district primary dropout rate for boys was 53%, girls 62% and for both 57% in the year 1995-96. It is a good sign that the dropout rate is decreasing continuously for both boys and girls in Rayagada district. In the year 2004-05, the dropout rate for boys had decreased to 15%, for girls to 24%, and for both to 19%. In Sonepur district, by the year 2003-04 the primary dropout rate had decreased to 1% in the case of boys and 4% for girls.

Nutritional Impact and End of Class Room Hunger: This scheme improved nutritional standard of school children, satisfied their hunger and provided some incentive to go to school. One cooked meal provided to each primary school student contains 300 k.cal and 8-10 gm of protein. Although 300 k.cal do not fulfill total calorie requirement it provides additional calorie to young students. According to the students interviewed they are satisfied with whatever meal provided. The teachers, parents and some students interviewed felt that quality of meal can be improved by enhancing per capita allotment for cooking condiments.

Increase in Attendance: In KBK districts, awareness has increased towards education through the scheme. All the teachers and parents interviewed were of the

view that the attendance is increasing in recent years compared to the initial years of MDM scheme implementation. On the days egg is cooked, there is full attendance in schools and even pre-school children come to the primary schools. In general, it was found that attendance has substantially improved mainly because of MDM provision. Some of the teachers are in favour of supplying non-vegetarian items such as fruits for the vegetarian students.

Quality of Rice: The rice provided from the nearest FCI (Food Corporation of India) depot to the primary schools is invariably of good quality. All the interviewed students, teachers, and cooks are satisfied with the quality of rice provided. Quality of rice deteriorates where the storage facilities in schools are poor. Schools with small number of students require low amount of rice. There is however no provision to provide rice in small packets. So the whole sack is provided to the school. Specifically during rainy season, the quality of rice not properly stored deteriorates fast.

Quality of Dal: In the scheme dal is purchased locally during the production season. The quality of dal up to three to four months of harvest is good and it boils properly. However, after this period the quality remains deteriorates due to absorption of moisture as dal is stored in jute bags and kept on the floor. A high proportion (more than 75%) complained about the quality of dal (pulses).

Performance of SHGs in MDM: In a high proportion of cases SHGs have taken over the charge of providing MDM in schools since 2005. In KBK 64% of schools are under SHGs and in these schools the overall quality of meals and mode of operation of the scheme has improved. Nabarangpur is one of the most successful districts where 97% of schools are under the charge of SHGs. In Sonepur district 75% schools are managed by SHGs, whereas in Kalahandi district they cover 69% of schools.

School Kitchen Garden and MDM: Some schools having kitchen garden provide more palatable and nutritious meal under the scheme. Wide varieties of vegetables are produced in some schools which have kitchen gardens. Brinjals are available all over the year and are an important part of the mid-day meal curry. Banana and gourd are also produced along with some seasonal vegetables. Papaya is also available throughout the year. The quality and quantity of MDM curry is high in schools where vegetables are produced in school campus. It is observed that in KBK districts,

residential schools are performing well as compared to general schools. The noon meal provision of residential school is merged with the MDM scheme resulting in an improvement in quality as well as quantity.

Fuel Problem: From the beginning of the operation of the scheme, problem of fuel for cooking has been experienced. All the interviewed cooks, SHG members, and headmasters complained about the low cost norm for fuel. In the scheme, there is only Rs.0.16 paise provided for fuel and stationery per student per schooling day. To fill the gap between allotment and actual consumption of fuel, cooks collect firewood for which they do not usually get any payment.

Cooking Utensils: Shortage of cooking utensils is another problem in afflicting the scheme in KBK districts. It was found that 12% schools face severe problem at the time of cooking meals. In Nabarangpur district the team found that two schools were cooking mid-day-meal twice to meet the demand as the size of cooking pots was too small. In a case in Koraput district it was found that the cooking utensils were rented from the village, @ 30 rupees per month paid from the SHG fund.

Temporary Cooking Shed: In KBK districts 67% of schools have permanent cooking shed and remaining 33% of schools face problem of cooking in temporary cooking shed, where cooking food is unsafe. During rainy season cooks face difficulties in cooking as well as serving meals to children. All the schools should have permanent cooking sheds.

Payment to Cook: The meagre remuneration of the cook and helper amounting to Rs 200 and Rs 100 per month respectively are much lower than the minimum wage level (summed for a month) fixed by the government. This is a major cause of dissatisfaction among the cooks and helpers. While the minimum wage rate per day is Rs 70.00 the meager monthly salary received by the cook and helper who spend 3-4 hour for cooking the meals and more time for collecting firewood is unjustified.

Frequent Change in Cost Norms: The coverage of Mid-day meal is now increasing through implementation of the scheme in schools by SHGs. All the SHG members are not literate and are unable to implement frequent change in cost norms of cooking condiments. It is found that three letters were circulated by the W & CD Department

to all the collectors regarding the changes in cost norms of MDM. The SHG members faced difficulty in implementing the scheme due to these frequent changes.

Despite many shortcomings in implementation of the programme, it is running well. All the interviewed teachers, students, and parents are satisfied with the scheme. For better implementation of the scheme, some selected recommendations can be taken into account. There should be effective supervision of attendance through surprise checks by supervisors. Present supervision system appears to be the weakest area of scheme implementation.

EMERGENCY FEEDING PROGRAMME

This summary is based on primary data obtained through a large sample survey in 49 AWCs in 26 Blocks in KBK total 26 blocks are randomly selected, where 49 AWCs are visited. Structured schedules and questionnaires were canvassed to 504 respondents comprising of 370 beneficiaries, 49 supervisors, 49 cooks, 22 non-beneficiaries, and 14 ward members.

Improving Nutrition and Health: This programme is implemented taking into consideration the poor nutritional status of old people in the KBK Region. Most of the tribals go to the forest after taking some ragi porridge. The person who has no one to depend on is bound to go to forest to collect firewood on an empty stomach. Therefore, the health and nutritional status of the old people goes down. Though one cooked meal per day is not sufficient for a person, yet it provides additional nutrition to the beneficiaries. This meal provides to each beneficiary 749 kcal of energy and 21.6grams of protein along with vital vitamins and minerals. The nutritional deficiency of beneficiaries has decreased due to the programme. Whatever calories they get from the programme fulfills near about one third of their calorie requirement.

In KBK district 75% of the beneficiaries believe that there has been some improvement in their health due to this programme, whereas 24% of beneficiaries report that there has been no improvement. For general diseases like cold and fever medicines are provided to the beneficiaries through the Anganwadi centres. Sometime supervisors/workers suggest them to go to hospitals for diagnosis and treatment of diseases.

Reducing Hunger: The Emergency Feeding Programme is an attempt towards the reduction of hunger among the elderly. A cooked meal is provided 360 days in a year to each beneficiary of the scheme. The interviewed beneficiaries were satisfied with the scheme as it has ensured a free meal everyday whereas previously many of them used to remain hungry. Most of the beneficiaries also said that their intensity of hunger has reduced.

Impact on Life Expectancy: From the analysis of primary data, it is found that 84% of the beneficiaries are above 60 years. From the above 60 years age group, male are 41%, whereas female are 59%. The remaining 16% include people who are below 60 years, physically and mentally handicapped persons, widows and the helpless. When the programme was implemented in the year 1995-96, the life expectancy for rural Orissa was 56.1 years, where the rural male and female life expectancies were 56.4 and 58.8 years respectively. This is not possible to draw any conclusion regarding any change in longevity of the beneficiaries. But almost all of them felt that the quality of life has positively changed. The beneficiaries said that they would like to avail the benefits of the feeding programme till they are alive.

Good Quality of Rice: In the programme 200 gram rice was provided to each beneficiary. Since September 2006 an additional 50 gram of rice being provided. Rice is purchased from the nearest FCI depot, and the quality of rice is good. The increase in per capita beneficiary allotment of rice has resulted in greater satisfaction and mitigation of hunger among the beneficiaries.

Single Meal Provision: In this programme a single noon meal is provided to all the beneficiaries. Insufficient food available in the house pushes them to work in the field as labourer. They find it difficult to work at such an old age. All the beneficiaries said two meals should be provided to them every day which would fulfill their nutritional requirement.

Poor Quality of Dal: Most of the beneficiaries are satisfied with the meals provided to them. For three to four months after the harvesting season the quality of dal supplied is satisfactory. Because of poor storage, the quality of dal deteriorates and after this period dal does not cook well. It is found that in Bolangir and Koraput districts there is also an irregular supply of dal leading to provision of only cooked rice in the lunch.

Fuel Problem: In case of Emergency Feeding Programme there is no such provision for fuel. This is a major lacuna in the programme and this view is shared by most officials and cooks. In 16% of the cases firewood (fuel) is collected from the forest as per seasonal availability otherwise they purchase the firewood from market, by utilizing the funds provisioned for condiments. It is necessary to make funds available for purchase of fuel.

Payment to Cook: Under the programme there is no provision for an independent cook; the cook is itself an employee of the AWC entrusted with another responsibility. Before the introduction of the scheme, she was getting Rs 500 per month as an Anganwadi helper. As no cook was appointed after the implementation of the programme the responsibility of cooking and collecting firewood was passed on to the helper of the AWC. Though the responsibilities of the helper have increased there has been no increase in her salary.

Cooking Shed: In KBK districts 78% AWCs have permanent cooking shed whereas 22% AWCs have temporary cooking sheds. In Koraput and Nawarangpur all the centres under the primary sample survey have permanent cooking shed. Where there are no cooking sheds, verandas of the AWCs are used. In temporary cooking shed the food preparation is unsafe. It is recommended that cooking shed should be constructed adjacent to AWCs.

Addition of New Beneficiaries: In most of the villages, there are many old people who are eligible to get the benefit. However, additional beneficiaries cannot be included in the programme as the number of beneficiaries is fixed per centre under a panchayat as per the guidelines of the programme. The eligible would-be-beneficiaries can only be included in the programme by increasing the number of beneficiaries in the programme guidelines.

Despite some problems in implementation in Emergency Feeding Programme mentioned above, it is running fairly well to provide a regular cooked meal to the deserving. Most of the beneficiaries are satisfied with the meal. It is found that AWCs are at the base level of this programme and are reasonable supervised and EFP is running well. The programme effectiveness can improve if the constraints are removed and all those deserving are urgently included in the programme.

INTRODUCTION

The nutritional and educational indicators in the case of the Indian children are not very encouraging. The nutritional deficiency is substantiated by the weight and height for age indices. In conjunction with low educational statistics such a scenario of poor nutritional status calls for a strategy aiming at reducing the severity of both the inadequacies. Though there has been some improvement in child education in the recent years, the goal of universal elementary education has remained elusive. Wider awareness of these issues has led to significant initiatives, such as, reorganization of elementary education as a fundamental right, introduction of an “educational cess” and launching of “Sarva Shiksha Abhiyan” (SSA). In this context, ‘Mid-Day Meal Scheme’ is another step towards the achievement of a well-nourished and educated young India.

The quality and quantity of educational material retained depends on the nutritional status of the children, especially in the age group of 6-14 years. This close link between health and educational outcomes stimulated the Government of India to launch the National Programme of Nutritional Support to primary education, popularly called the Mid-Day Meal scheme in August 1995. The aim of the scheme is universalization of primary education by increasing enrolment, retention and attendance, and simultaneously having a positive impact on the nutritional status of the students of primary classes.

Recent surveys indicate that in Orissa nutritional deficiency in respect of children, both boys and girls, is very high. In relation to recommended level (RDA), the deficit in calorie consumption is 29% for boys and 27% for girls of age-group 4-6; for age group 7-9, it is 25% and 24%, and for age group 10-12, 24% for boys and 14% for girls. The deficit is much higher in respect of KBK region as well as for certain districts within this region. For Malkangiri, as an example, has the highest deficit 59% for boys in 4-6 age group, 43% for boys and 45% for girls of 7-9 age group, 38% and 31% deficits for boys and girls respectively in the age group of 10-12 years.

ICMR (Indian Council of Medical Research) study also provides data on protein and other nutrient deficiency in relation to recommended doses in Orissa as well as districts in KBK region. It shows the high deficiency percentage in relation to recommended doses in almost all districts of KBK both in respect of girls and boys (see Annex 1a & 1b). All these indicate the vulnerability of children to nutritional deficiency and related infection and the need for a programme to supplement calorie and other specific nutrition.

KBK is the most backward region of Orissa. As per the 1997 BPL survey, 71.79% of the families are living below the poverty line in the KBK region, whereas in the case of Orissa the percentage of BPL families is 63.37%. The literacy rate of the KBK region is only 43.33%, which is below the state literacy rate of 50.51%. Further, the literacy rate of females is only 29.10% in the KBK region as per the 2001 census. The mid-day meal scheme in Orissa was launched on the same day along with the other States covered under the scheme i.e. on the 15th August 1995. Under the scheme, one cooked meal is to be provided to each student in primary schools all over Orissa. This will indirectly enhance the interest of the students towards studies and consequently lead to an increase in the literacy rate of the KBK districts and Orissa as a whole.

Prelude to MDM¹

The provision of serving meals in schools is not a new concept. Nor is it localized to India. Such programmes were launched in many countries beginning with France in 1885. The meals were provided on free as well as payment basis. Since then school lunch programmes have been introduced in several parts of the world, such as, the UK (1945), USA (1946), Switzerland (1946), Japan (1947), Australia (1950), China (1964-69) and Singapore (1975). These programmes have also been introduced in the developing countries like Indonesia (1967), Thailand (1970), Korea (1973) and Samoa (1980).

Madras Corporation started such a programme on an experimental basis in Madras (Tamil Nadu) in 1925. This covered children of the families with an income below Rs.50.00 per month as an incentive to improve attendance in the schools.

¹ Some portion of prelude to MDM is derived from: Vision-2020, An Agenda for School and Mass Education, Report of the Task Force, Department of School and Mass Education, Government of Orissa, 2003

Subsequently, the philanthropists and voluntary organization were urged to start free school lunch centers in the villages and towns all over Tamil Nadu.

In post-independence years, a noon meal programme was officially launched by K. Kamraj, the then Chief Minister of Madras, in the year 1956. In 1982, the programme was further developed and introduced as “Chief Ministers Nutritious Noon Meal Programme” (CMNNMP). Later the scheme was extended to cover primary schools in the municipal and urban areas.

The success of the programme in Tamil Nadu stimulated adoption of the programme by other States, such as, Karnataka, Uttar Pradesh, Haryana (1961), Orissa (1959), Kerala, Punjab, Rajasthan, Andhra Pradesh (1962), Madhya Pradesh (1965) and Bihar (1968).

The Mid-Day Meal scheme in its present form was incorporated as a National Programme under Shri P. V. Narasimha Rao, the former Prime Minister of India, on August 15, 1995. All the States and Union Territories of the country were encouraged to adopt this programme in the primary schools (I to V) for the benefit of the children in the age group of 6-11 years studying in these schools.

Though the State Governments were given two years to provide cooked meals, most of the States were successful only in providing dry rations in the form of wheat/ rice, taking into consideration the attendance of the students.

In an interim order, dated November 28, 2001, the Supreme Court of India directed all the State Governments “to implement the mid-day meal scheme by providing each child in every Government and Government assisted primary school with a prepared mid-day meal with a minimum content of 300 calories and 8-12 grams of protein each day of schools for a minimum of 200 days”². However very few States were able to put the order into effect by the due date, February 28, 2002 and hence it had to be extended upto January 2005. This led to nation-wide protests and demonstrations and people expressed their dissatisfaction by distributing copies of the Supreme Court order, while the children lined up in the streets with empty plates.

² Reetika Khara, “Mid-Day Meals in Primary Schools, Achievements and Challenges”, Economic and Political Weekly November 18, 2006, Vol XLI, No 46

A reformulation of the guidelines for mid-day meal scheme by the Government of India was taken up in 2004, as a result of which the mid-day meals were being fully implemented in 20 states and 7 union territories and partially in the remaining eight states.

Objective of the Scheme³

The Central Government have approved a revised scheme, titled “National Programme of Nutritional Support to Primary Education, 2004 (NP-NSPE, 2004)

1. To boost universalisation of primary education (Classes I-V) by improving enrolment, attendance, retention, and learning levels of children, especially those belonging to disadvantaged sections.
2. Improve nutritional status of students of primary stage.
3. Provide nutritional support to students of primary stage in drought affected areas during summer vacation also.

³ Source: Internet website. <http://www.education.nic.in/mdm/mdm2004.asp>

OBJECTIVES AND METHODOLOGY

Objectives of the Study

The followings are the objectives of the study

- To evaluate the extent to which the objectives of the programmes/schemes have been achieved.
- To identify the constraints faced by the implementing agency and the extent to which the achievement was affected by the constraints.
- To identify the constraints faced by the beneficiaries and the extent to which constraints affected the benefits?
- To ascertain special efforts made by the implementing agency to avoid short fall or accelerate achievements.
- To identify the best practices in the KBK districts.
- To recommend specific measures to improve the programmes.

Scope of the Study

The evaluation study has been conducted with certain specific objectives, which aim at highlighting the changes that have come about on the nutritional and educational status of the students after the implementation of the scheme. In this study, both primary and secondary data have been used to bring forth the impact of the scheme. This study also makes a comparison of the achievements of the programme across the KBK districts. The suggestions are for better implementation of the programme. The study will help the government to reformulate their strategies and make necessary changes in the programme and plan accordingly. It will also help the research organizations, NGOs working in poverty reduction fields, researchers and other people involved in different development activities.

Methodology of the Study

The study has been based on secondary data collected from different sources. The secondary data based on physical and financial achievement till 2004-05 have been collected from the Women and Child Development Department, District Officials and from sample schools to obtain a clear picture of the programme. From the sample schools primary data have been collected through specific questionnaires canvassed amongst the headmasters/teachers, students, cooks, parents, and ward members.

Information has been collected through specific questionnaires relating to the impact of mid-day meals from the above personnel. The problems facing the programme have been discussed with the officials at the district level and teachers and SHG members in schools at village level.

From each district, three blocks have been selected on random sample basis. Out of each block, two schools have been selected. In all total, 48 schools have been selected, 6 schools from each district. From each school 8 students, 1 teacher and 1 cook were interviewed. Parents, dropout students and ward members also were interviewed according to their availability. In all, 12 respondents have been selected from each school. In the KBK districts as a whole, 589 respondents comprising of 413 students, 48 cooks, 48 teachers, 34 parents, 27 dropout students and 19 ward members were contacted for the study. Sample details of Mid-day meal scheme is as follows in the Table1 No.1.1

Table No.1.1: **Sample Details of Mid-Day Meal scheme**

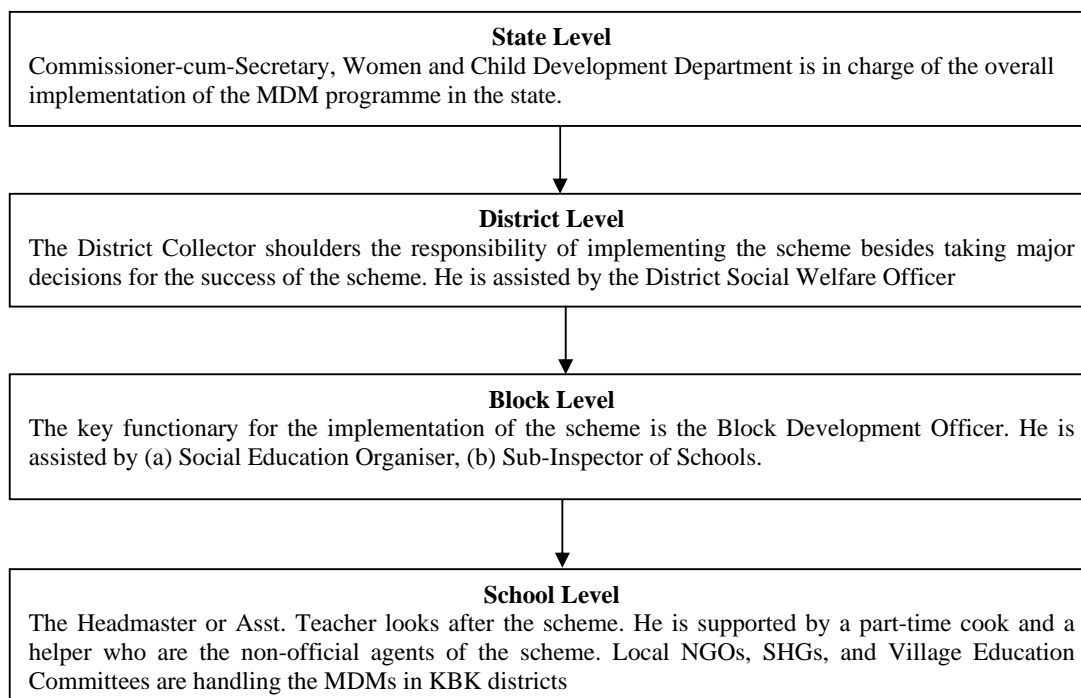
Sl No	District	No. of Blocks	No. of Schools	Student	Teacher	Cook	Parent	Drop out	Ward member	Total
1	Kalahandi	3	6	48	6	6	6	5	2	73
2	Nuapada	3	6	56	6	6	2	3	2	75
3	Bolangir	4 ⁴	6	56	6	6	3	2	2	75
4	Sonepur	3	6	57	6	6	3	2	2	76
5	Koraput	3	6	49	6	6	5	4	2	72
6	Nabarangpur	3	6	49	6	6	5	6	3	75
7	Malkangiri	3	6	49	6	6	5	3	3	72
8	Rayagada	3	6	49	6	6	5	2	3	71
	KBK Total	25	48	413	48	48	34	27	19	589

⁴ In Bolangir district 4 blocks are selected as the requisite number of schools could not be covered from three blocks due to long distance from District headquarters.

ORGANISATIONAL STRUCTURE

The Mid-day meal programme is a centrally sponsored scheme. The Central guidelines allow the State Governments to manage the mid-day meals through a designated “nodal department”, such as, Education Department, Department of Primary Education, Rural Development, Women and Child Development and Social Welfare Department. In the case of Orissa, Women and Child Development Department is the nodal department, implementing the mid-day meal scheme at the State level. At the district level, the implementation of the scheme is under the authority of the Collector. However, the direct implementation responsibility is given to the District Social Welfare Officer (DSWO). At the block level, the Block Development Officer (BDO) takes the overall charge of the scheme. The BDO is helped by the Social Education Organiser (SEO) and Sub-Inspector of Schools in implementation at the block level. The Social Education Organiser takes charge at the school level, whereas the Sub-Inspector of Schools takes the overall charge of the scheme. The Headmaster or assistant teacher is in charge of the programme at the school level. One cook and one helper are engaged as part time staff (engaged by teachers) to cook the meal. As per the guideline of MDM scheme, Village Education Committees, Self Help Groups, and NGOs are involved in the implementation and supervision of the scheme. So far as SHGs are concerned the oldest SHGs are given preference to take charge of the scheme in the village. If two SHGs have been formed on the same date, priority is given to the SHG with higher savings. The selected groups have to deposit an amount (one month expense of MDM for the students) at the Block office as security. The deposit amount varies from SHG to SHG. In some cases, Government officials have persuaded the group to take charge of MDM.

Organisational Structure of Mid Day Meal Scheme in Orissa



All the students are provided @ 100 gram of rice. Rice is provided from the nearest FCI depot to the primary schools. Dal is supplied by the dealer selected on a tender basis. Other cooking condiments are supplied by the State Government. The condiments are purchased under the supervision of the Headmaster of the school or

Table No. 1.2: **Cost Norms of MDM**

Sl. No	Name of the item	Quantity	Price
1	Supervision charges	-	Rs.0.35
2	Dal	25gm	Rs.0.70
3	Oil	3gm	Rs.0.15
4	Vegetable, Condiments, and Salt	-	Rs.0.20
5	Fuel and stationery	-	Rs.0.16
6	Transportation Cost	-	Rs.0.10
7	Egg	-	Rs.0.38
8	Micronutrient	-	Rs.0.10
	Total		Rs.2.14

Source: DSWO, Koraput

President of the Self Help Group out of the cash allotted by the State Government. However, the cash for the above purpose is provided at the end of the month. This result in a month's overdue for the headmaster or SHG. In

this regard, SHGs are better off as they always have adequate funds. Wages of the cook and helpers are paid by the Government. Cost norms of MDM are given in table no. 1.2.

ACHIEVEMENTS OF MID DAY MEAL SCHEME

The prime objective of this programme is to give a boost to universalisation of primary education by increasing enrolment, retention and attendance and simultaneously impacting on nutrition of students in primary classes. In this chapter, findings of the study have been recorded taking into consideration the achievables of the programme.

Physical Achievements

The physical and financial achievements in terms of number of schools under the scheme in three consecutive years are given below. In the year 2004-05, there were 15868 schools under the scheme in the KBK districts. In the following year, the total numbers of schools under the scheme increased to 18486. In the year 2006-07, the number of schools under the scheme decreased to 18439.

Table No. 1.3: **District wise No. of Schools Covered under MDM Programme in KBK districts**

Sl. No	Districts/ Year	2004-2005	2005-2006	2006-2007
1	Kalahandi	2900	3037	3021
2	Koraput	2064	4238	3197
3	Malkangiri	1436	1480	1410
4	Nabarangpur	2126	2170	3392
5	Nuapada	1372	1371	1356
6	Rayagada	2521	2597	2565
7	Sonepur	1055	1058	1093
8	Bolangir	2394	2535	2405
	KBK Total	15868	18486	18439

Source: W & CD Department, Government of Orissa

Financial Achievements

It is found that (Table 1.4) the funds allocated to the KBK districts are utilized in the

Table No. 1.4: **Year wise Allotment and Expenditure of Funds in KBK Districts**

Year	Allotment (Rs.in Lakhs)	Expenditure (Rs. in Lakhs)
1998-1999	723.11	613.88
1999-2000	656.01	656.01
2000-2001	647.74	647.72
2001-2002	680.33	679.72
2002-2003	515.27	515.07
2003-2004	492.37	492.37
2004-2005	672.17	667.89
2005-2006	2998.50	2687.69

Source: W & CD Department, Government of Orissa

same year to a large extent. The excess funds go to the opening balance of the next year. In 2005-06, there was a change in the cost norms of the MDM scheme. In the same year, village women Self Help Groups got increasingly involved in the scheme. In the programme, a supervision charge was added for all the schools. So there is a

comparatively larger difference between allotment and expenditure as compared to the previous years.

EDUCATIONAL ACHIEVEMENTS

Increase in Enrolment

Increase in enrolment is one of the primary objectives of the scheme. The increase in enrolment has been sharper in the case of the KBK districts in comparison to the State as a whole. Because of the scheme, larger numbers of students are getting admitted in class-I and they continue their studies up to class-V. Parents show greater interest in sending their children to school.

Table No. 1.5: **Comparison of Enrolment Status of the KBK Districts and Orissa**

Sl. No.	Districts	1995-96	2004-05	% of change in enrolment between 1995-96 and 2004-05
1	Bolangir	151000	199571	32
2	Kalahandi	132000	202545	53
3	Koraput	83000	193919	134
4	Malkangiri	49000	99414	103
5	Nuapada	57000	95166	67
6	Nabarangpur	85000	160682	89
7	Rayagada	72000	136290	89
8	Sonepur	60000	72382	21
	KBK	689000	1159969	68
	Orissa	3887000	5214795	34

Source: Directorate of Elementary Education, Government of Orissa

In almost all the KBK districts the enrolment increased in the subsequent year compared to that at the inception of the programme. District-wise analysis of data would provide a better picture of enrolment relative to the state scenario. In Table No.1.5, in the year of inception (1995), the total enrolment in Bolangir was 1.5 lakh, which increased to about 2 lakh in the year 2004-05 registering 32% increase. In Koraput and Malkangiri districts the increase in enrolment in the corresponding period were 134% and 103% respectively. In the case of Orissa, the enrolment has increased by only 34%, whereas in KBK the increase in enrolment is 68%.

The teachers are also of the view that the enrolment of students in primary classes has increased since the year of introduction of the scheme. There is a greater impact on

enrolment of the children of the disadvantaged families, Dalits, Scheduled Castes, Scheduled Tribes and the poorest sections of the society.

Table No.1.6: **Year wise Status of Enrolment at the Primary School in KBK Total and Orissa**

(Percentage calculated from the previous years)

Year	KBK Total		Orissa	
	Number	Percentage	Number	Percentage
1995-96	689000		3887000	
1996-97	695300	0.91	3840300	-1.20
1997-98	709800	2.09	4004700	4.28
1998-99	836486	17.85	4578497	14.33
1999-00	816000	-2.45	4505000	-1.61
2000-01	927865	13.71	4710248	4.56
2001-02	1020328	9.97	4748692	0.82
2002-03	945126	-7.37	4644749	-2.19
2003-04	1052177	11.33	4918067	5.88
2004-05	1159969	10.24	5214795	6.03

Source: Directorate of Elementary Education, Government of Orissa

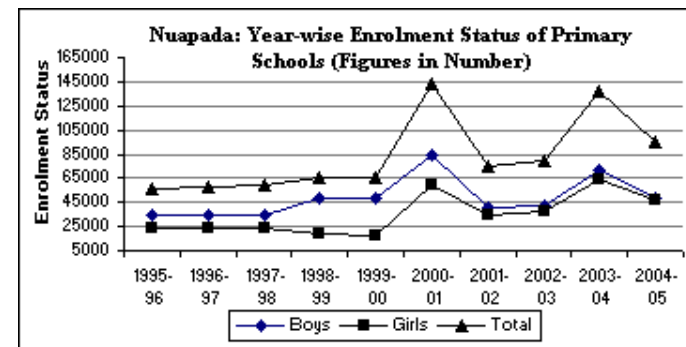
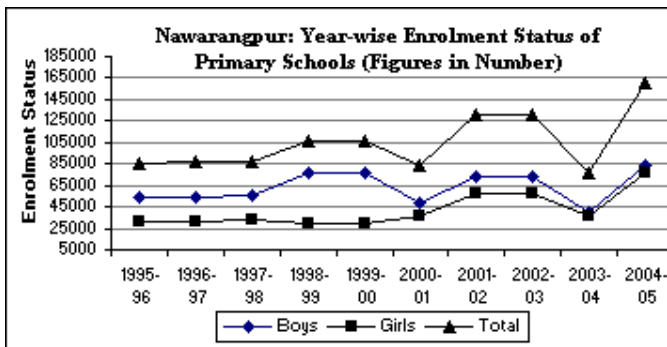
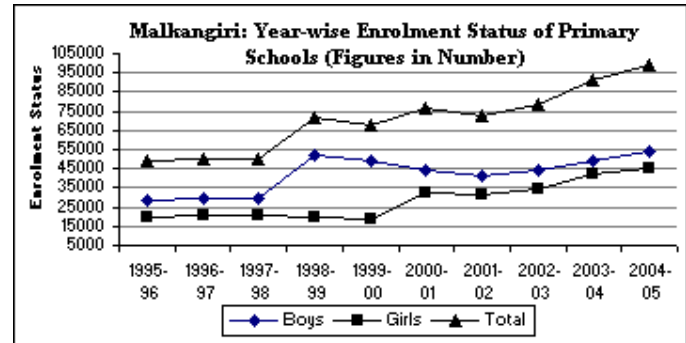
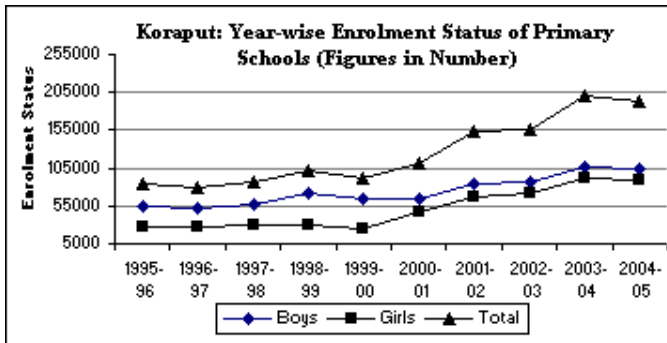
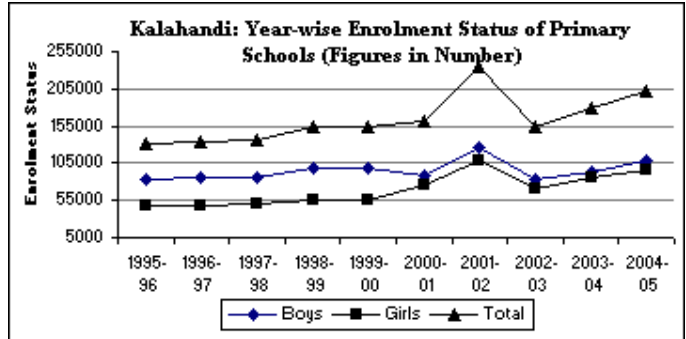
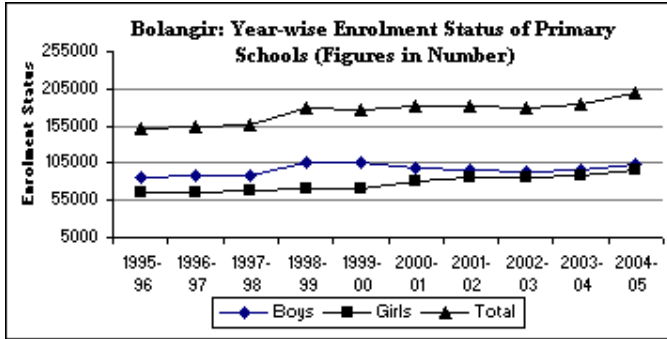
It is observed that (Table 1.6) though at the primary level enrolment in KBK districts has increased over the years; there has been a decline in certain specific years. In 1999-2000 and 2002-03 enrolment has decreased as compared to that in the respective preceding years. At the inception of the programme, total enrolment in KBK districts was near about 6.9 lakh. After nine years of implementation of MDM programme, the enrolment has increased to 11.6 lakh. Thus the enrolment in KBK districts at the inception of the programme in 1995-96 was 59% of the enrolment in 2004-05. In the year 1995-96 total enrolment in Orissa was 38.9 lakh. After nine years of implementation of MDM, the figure increased to 52.1 lakh. In the case of Orissa, increase in enrolment over the corresponding period was 75%.

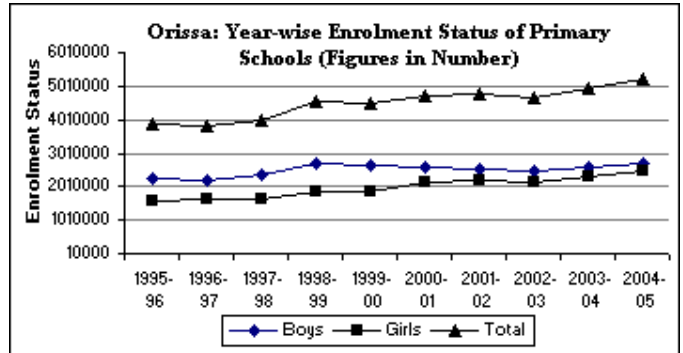
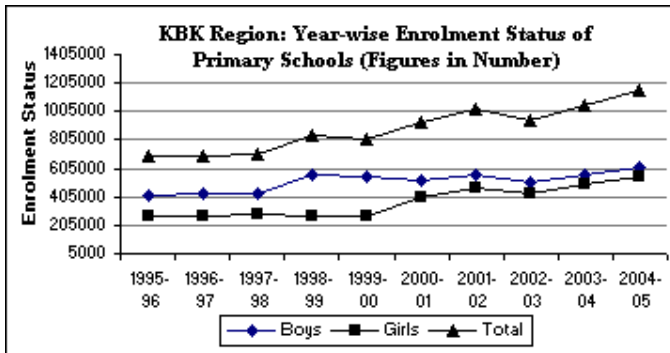
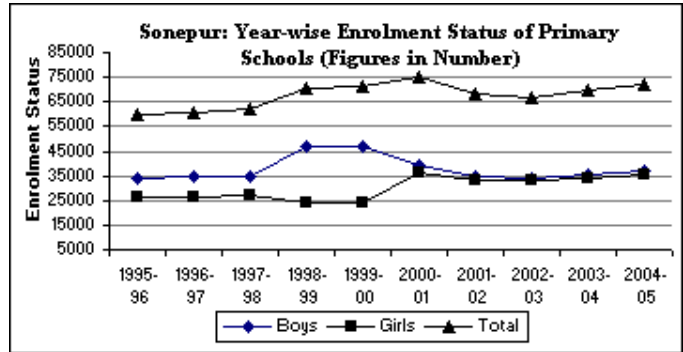
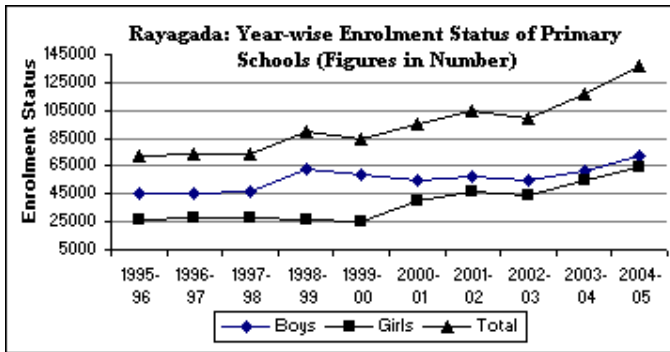
Again in the year 1995-96 enrolment in the KBK districts was about 18% of the total enrolment in Orissa. Nine years after, the corresponding enrolment in KBK districts to Orissa is 22%.

From the table it is again found that the variability in enrolment in Orissa. In 1996-97, 1999-00, and 2002-03, enrolment declined corresponding to that preceding years. In other years, there is increase in enrolment.

Year wise and districtwise enrolment status can be easily understood from the graphs given below in Graph No.1.1 (for details see Annexure -2)

Graph No.1.1: District-wise Enrolment Status of Primary Schools in KBK Districts





Source: Directorate of Elementary Education, Government of Orissa

The above graphs clearly show that enrolment of both boys and girls has gone up, though the enrolment of girls has been less than that of boys in all years across all KBK districts.

From primary data (table 1.7), it is found that 88% of both teachers and parents are of

Table No. 1.7: **Enrolment status in KBK districts** (Figures are in percentage)

Sl No	Districts	Teacher's view ⁵	Parent's view ⁵
1	Bolangir	50	67
2	Kalahandi	100	83
3	Koraput	100	80
4	Malkangiri	83	100
5	Nabarangpur	100	80
6	Nuapada	83	100
7	Rayagada	100	100
8	Sonepur	83	100
	KBK Total	88	88

Source: DJRC Primary data

the view⁵ that the increase in enrolment is due to the implementation of MDM scheme. In Kalahandi, Koraput, Nabarangpur, and Rayagada districts all the interviewed teachers agreed that the increase in enrolment was due to this scheme. All the interviewed parents of Malkangiri, Nuapada, Raygada, and Sonepur districts also support this view.

⁵ Teachers' / Parents' View: No. of teachers / parents are in favour of increasing enrolment in schools.

Increase in Attendance

Increase in attendance and enrolment in primary classes due to certain attractive features provisioned by the government. The government have declared that each student will be provided one egg @ 38 paise per week (one boiled egg is provided in a week). This provision has resulted in almost full capacity attendance on the particular day eggs are served. Apart from primary students, the pre school children also come to school to take the egg-meal.

Retention of Students in School

Though it is difficult to measure the increase in the retention of the students, a gross indicator is the increase in afternoon attendance after the meal has been served. Retention of students in the school was quite low in the initial years of the implementation of the programme. However, since the change over to cooked meal, the retention of students in school has increased. These observations are also in line with the experiences in other developing regions of India.

“Some teachers also pointed out that mid-day meal makes it easier to retain pupils after the lunch break. Earlier children used to go home for lunch and many did not return. Now they stay on school premises and classes resume smoothly after the mid-day meal. The fact that mid-day meals enhance school attendance in the afternoon contrasts with the common argument that mid-day meals disrupt classroom activity and interfere with teaching process”⁶

According to the state level officials of the Directorate of Elementary Education, the retention of students is increasing. In one of the methods for calculating dropout rate the sum of percentage of retention and percentage of dropout is taken to be 100% (total number of students enrolled). If the dropout rate decreases, then the retention is increasing. From the dropout status, the retention can be easily calculated.

Dropout Status

Dropout can be calculated in two ways, such as, Class wise dropout and Primary dropout. As per the data available at the Directorate of Elementary Education,

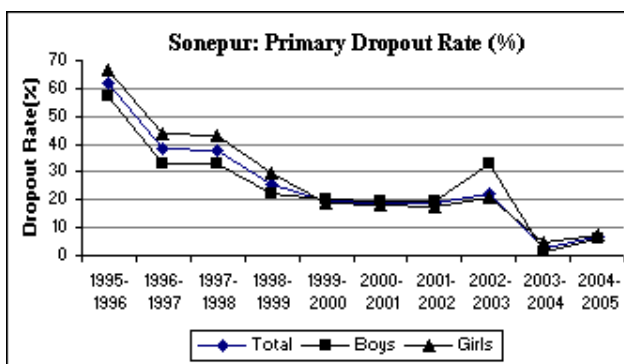
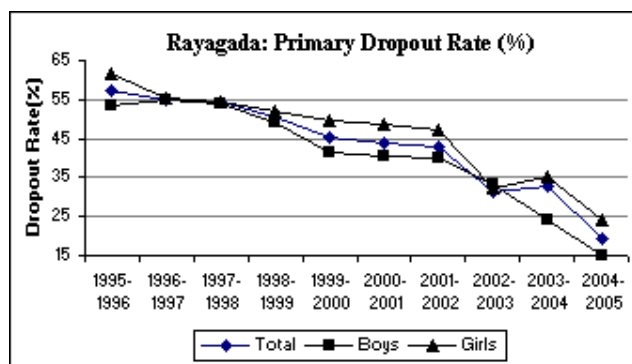
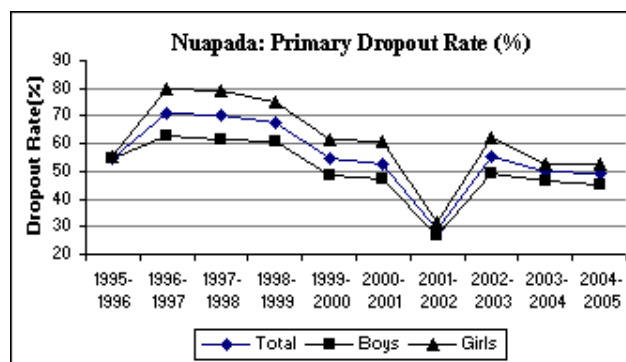
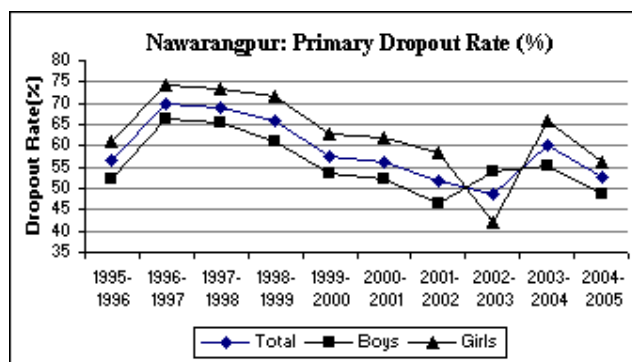
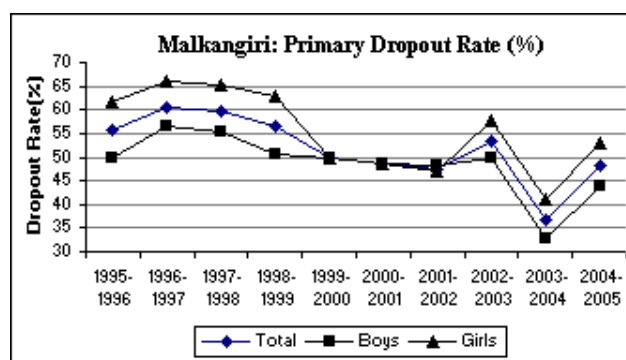
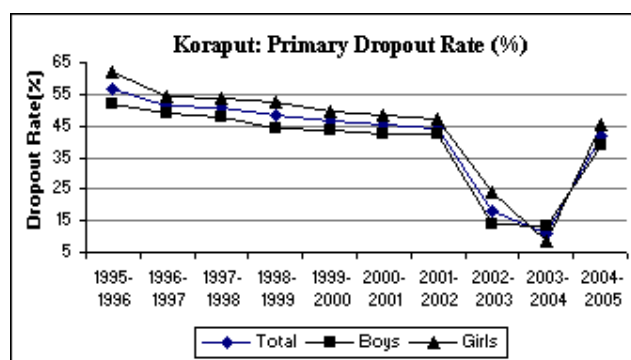
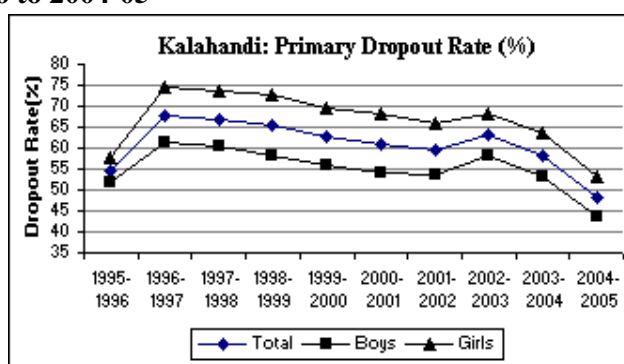
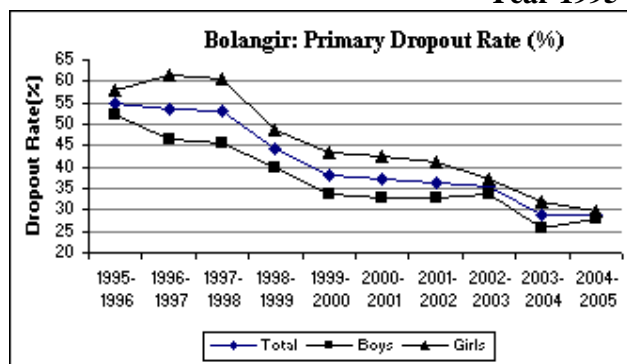
⁶ Jean Dreze, Aparajita Goyal “Future of Mid-Day Meals”, Economic and Political Weekly November 1 2003, Vol XXXVIII, No 44

Government of Orissa, only Primary dropout is calculated. Primary dropout is calculated by subtracting the number of students in class V from the number of students admitted in class-1 four years before.

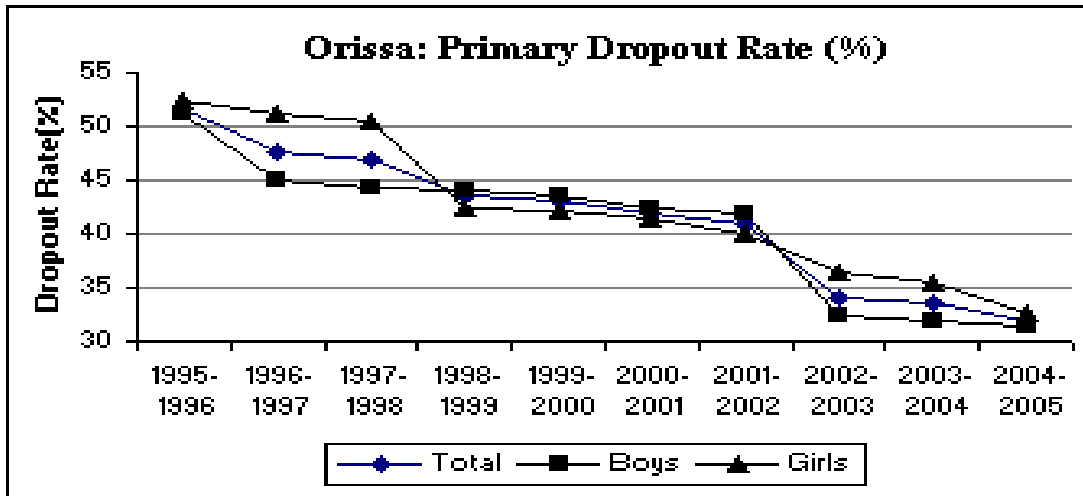
Reducing dropout is one of major objectives of the mid-day meal scheme. It is observed by the teachers in the schools that dropout rate has been decreasing since the inception of the scheme. This fact is also corroborated by the district wise data analysis. In 1995-96 the dropout rates of boys, girls, and their sum were 52%, 58%, and 55% respectively in Bolangir district. But by the year 2004-05, the dropout rate had decreased to 28%, 30%, and 29% for boys, girls, and both respectively in the same district. In the case of Koraput district, the dropout rates for boys, girls and for both were 52%, 62%, and 57% respectively in the year 1995-96. In the same district the dropout rate for boys had decreased to 13%, for girls to 9%, and for both to 11% in the year 2003-04. In the case of Raygada district the primary dropout rates were 53% for boys, 62% for girls and 57% for both taken together. It is a good sign that the dropout rates are decreasing continuously for both boys and girls in Raygada district. In the year 2004-05, the dropout rates for boys had decreased from 53% to 15%, for girls from 62% to 24%, and for both from 57% to 19% since 1995-96. Again in Sonepur district, there is a tremendous change in the primary dropout rate. In this district the rates for boys have decreased to only 1% and for girls to 4% in the year 2003-04 in comparison to 57% and 67% them respectively in 1995-96. (for details see Annexure-3)

We can't conclude that the primary dropout rate has decreased only due to mid-day meal scheme. There may be supporting factors like awareness regarding education among parents, decrease in illiteracy rate, and Government educational programmes like "Sarva Sikshya Abhiyan". Whatever the other contributing causes may be, MDM scheme has had a positive impact on education.

Graph No.1.2: District wise Primary Dropout Rates (in %) from the Year 1995-96 to 2004-05



Source: Directorate of Elementary Education, Government of Orissa



Source: Directorate of Elementary Education, Government of Orissa

It is found that the dropout rate has decreased in all the KBK districts since the inception of this programme. In the case of Orissa, the result is more stable as the state primary dropout rate has been continuously decreasing for the last ten years (1995-96 onward). Rayagada district follows a similar trend. In the other KBK districts, there are fluctuations in dropout rate. In Orissa the dropout rates for the boys, girls, and both taken together were 51%, 52%, and 52% respectively in the year 1995-96. But in the year 2004-05, the dropout rates decreased to 31% for boys, 33% for girls, and 32% for both.

Retention rate has increased due to the scheme. In Orissa the retention rates for boys, girls, and both were 49%, 48%, and 48% respectively in the year 1995-96, and increased to 69% for boys, 67% for girls, and 68% for both in 2004-05.

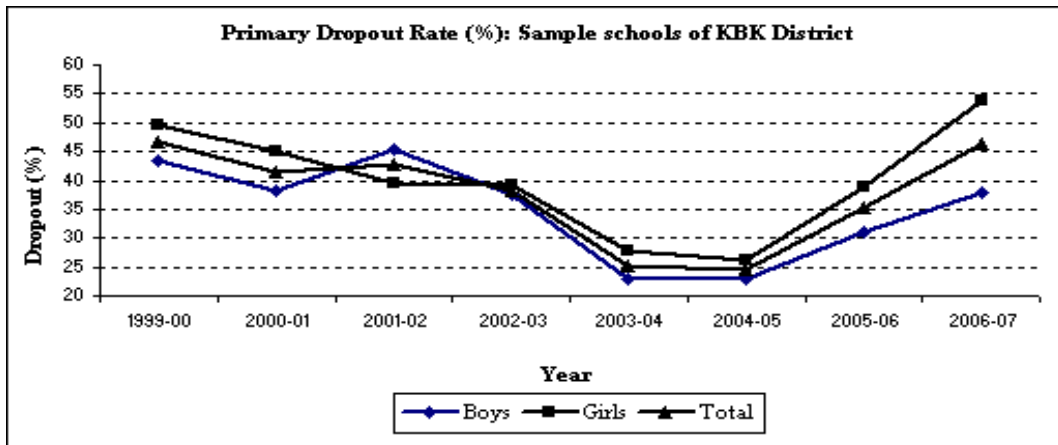
Primary School Dropout⁷

From the data for the sample schools it is observed that since 1999-2000, the dropout rate for boys is decreasing, but that for girls is increasing in the KBK districts. One of the major reasons of children being kept out of school is the lack of education of parents. Helping mothers in domestic work and looking after siblings are some of the activities which force a girl child to dropout from school. It is seen that when either of the parents is literate, he/she is willing to send their children including girls to school.

⁷ From the available primary school data provided by the headmasters from their schools, dropout rate is calculated for 17 schools

The degree and nature of family support depends upon by the factors like stressful/unstable home life, socio-economic status of the family, minority membership, single parent household, lack of education among parents, poverty, social in-security and distance of the school from home.

Graph No.1.3: **Primary Dropout Rate (%): Sample schools of KBK district**



It is found that in 1999-2000 the boys' dropout rate was 43% in the region. In the year 2003-04 it decreased to 23% and remained the same in the next year (2004-05). Again the rate has increased to 38% in the current year (2006-07). So there is a fluctuation in boys' dropout rate. In the case of girls, the dropout rate was 49% in the year 1999-2000. Since then, the rate declined till the year 2004-05. After this year, there was a substantial increase in the girls' dropout rate. In the current year (2006-07) the girls' dropout rate is 54%, whereas the total dropout rate for both boys and girls is 46%.

According to the teachers, students dropped out on continuously when the importance of education was not understood. But now that there is an increased awareness about the expenditure made by the government for primary education, parents are sending their children to school not only for MDM, but also for acquiring education. The provision of school dress by the government has also led to reduction in the dropout rate as parents want their children to avail this facility.

End of Class Room Hunger

In rural Orissa, specifically in rural KBK districts, where there is a high percentage of Schedule Castes/Schedule Tribe concentration, the economic condition of the

households is very poor. In such families, it is difficult to meet the nutritional requirements of all family members. Children from these poor households admitted in schools where mid-day meal is being provided are able to have atleast one meal. According to the parents, the provision of one free meal for their children helps them indirectly. If the meal had been provided at home, its cost would have been borne by the parents.

“Assessing the impact of the MDM on child nutrition is beyond the scope of the CES Survey. Given the rudimentary nature of the menu, it would be naïve to expect the mid-day meals to have a dramatic nutritional impact on their own. However, two related achievements do emerge from the survey.

First, mid-day meals facilitate the elimination of classroom hunger. Many Indian children reach school on an empty stomach in the morning, either because they are not hungry at that time or because their parents are too busy to arrange an early morning breakfast. In the absence of mid day meal, children often become hungry after a few hours and find it difficult to concentrate. For instance, one headmaster in Bellary district (Karnataka) reported that before mid day meals were introduced “the children of agricultural labourers used to loose interest and fall asleep around mid-day, because they were hungry”. This problem is now largely resolved.

Second, in the more deprived areas where some children do not get two square meals in a day, the mid-day meal is a protection against hunger in general. Mid-day meals have helped to avert an intensification of child undernutrition in many drought-affected areas. Similarly, poor households such as those headed by widows or landless labourers value the assurance of free lunch every day for their children. The contribution of mid-day meals to food security and child nutrition seems to be particularly crucial in tribal areas, where hunger is endemic. It is no wonder in the CES survey, parental appreciation of mid-day meals was highest among tribal communities.”⁸

As observed in the field, villagers are of the view that mid-day meal has helped the students by reducing class room hunger. According to them, it is not possible to feed

⁸ Jean Dreze, Aparajita Goyal, “Future of Mid-Day Meals”, Economic and Political Weekly November 1 2003, Vol XXXVIII, No 44

all the children in the family everyday in the morning. Sometimes children go to school on an empty stomach and return home for lunch. Even the students who came to school after having a morning meal found it difficult to manage the whole day on a single meal. Some of the students went home at lunch time and did not come back to school. When they are provided with a cooked meal at 1.30 p.m., they feel good and most of them remain in school after taking the meal.

Social Equality

The attitude, manner and behavior of children will be reflected in the society in the future. One of the most important aspects of attitude development is the harmony among students irrespective of caste or religion. Breaking caste barriers, the students of primary schools are sitting together for studies. Collective eating⁹ of the mid-day meal in a common place is one of the major achievements of the scheme, and this, in turn, has increased the intermixing among students.

In the case of Koraput, Bolangir, and Nuapada districts it was found that students are taking their meals at a common place. In the cases of Nabarangpur, Malkangiri, Kalahandi, Raygada and Sonapur districts, some deviations were noted at the time of taking the meal, as it was found that some students sat separately at the time of taking their mid-day meals. In Nabarangpur district (Table No.1.8) it was found that 37% of students took their meals sitting apart from the Scheduled Tribes/ Scheduled Castes students due to prejudices related to caste. Guardians of these students directed them from taking their meal with the children of 'lower' castes. In this district students mainly from Christian community took their meal disjointedly. 18% of the students in Sonapur district and 8% in the KBK region took their meal separately. The students in these districts said that their parents had debarred them from taking meals with other students.

Table No.1.8: Students Segregated while taking Meals in KBK Districts
(Figures are in Percentage)

Sl. No.	District	Students take their meal separately
1	Kalahandi	4
2	Malkangiri	2
3	Nabarangpur	37
4	Rayagada	2
5	Sonapur	18
	KBK Total	8

Source: DJRC Primary data

⁹ Collective eating: To sit and eat together in school premises

“The contribution of mid-day meals to social equity also has a variety of aspects. For instance, mid-day meals help to undermine caste prejudices, by teaching children to sit together and share a common meal. They also foster gender equity, by reducing the gender gap in school participation, providing an important source of female employment in rural areas, and liberating workingwomen from the burden of having to feed children at home during the day. To some extent, mid-day meals also reduce class inequalities. Indeed, in contemporary India, children enrolled in government schools come mainly from disadvantaged families. Thus, mid-day meals can be seen as a form of economic support to the poorer sections of society. More importantly perhaps, mid-day meals facilitate school participation among underprivileged children. This is likely to reduce future class inequalities, since lack of education is a major source of economic disadvantage and social marginalization. In short despite their innocent garb, mid-day meals are a significant challenge to the prevailing inequalities of class and gender”¹⁰.

According to teachers in Bolangir, Sonapur and Rayagada districts, caste prejudices hamper intermixing among the students to a significant extent. Some upper caste parents object to the provision of cooked meal at school. Some parents dictate their children to take their lunch at home where they feel the preparation of food is more hygienic. In one school in Malkangiri and two schools in Nabarangpur, it was observed that there was discrimination against the cook. In these schools Schedule Caste cooks are not allowed to cook the mid-day meal. In KBK districts, 60% of the cooks belong to Scheduled Tribes, 27% belong to other backward castes, whereas only 13% of the cooks belong to Scheduled Castes. However, overall the scheme has helped in increasing intermixing among students which directly affects social equity in the particular area.

Table No.1.9: **Intermixing among Students in KBK Districts**

(Figures are in percentage)

Sl No	Districts	Teacher's view	Parent's view
1	Bolangir	67	33
2	Kalahandi	100	83
3	Koraput	100	100
4	Malkangiri	100	100
5	Nabarangpur	100	100
6	Nuapada	100	100
7	Rayagada	83	100
8	Sonapur	83	100
	KBK Total	92	91

Source: DJRC Primary data

¹⁰ Jean Dreze, Aparajita Goyal, “Future of Mid-Day Meals”, Economic and Political Weekly November 1 2003, Vol XXXVIII, No 44

The scheme has motivated children to come to school more often. In the KBK region as a whole, 17% of the students stated that their only purpose of coming to school is the provision of a cooked meal, whereas 34% said that their reason for coming to school was to study and 49% cited both the reasons followed in the table no. 1.10

Table No.1.10: **Purpose of Students for coming to School in KBK districts**

(Figures are in Percentage)

Sl. No	District	MDM	Study	both MDM & Study
1	Bolangir	11	27	62
2	Kalahandi	6	71	23
3	Koraput	35	4	61
4	Malkangiri	8	43	49
5	Nabarangpur	31	33	36
6	Nuapada	11	43	46
7	Rayagada	29	14	57
8	Sonepur	9	37	54
	KBK Total	17	34	49

Source: DJRC Primary data

Table No.1.11: **Place of Distribution of MDM**

(Figures are in Percentage)

Sl. No	District	Class room	Open place	School verandah
1	Bolangir	-	2	98
2	Kalahandi	6	15	79
3	Koraput	-	51	49
4	Malkangiri	16	53	31
5	Nabarangpur	-	84	16
6	Nuapada	-	36	64
7	Rayagada	19	67	14
8	Sonepur	-	84	16
	KBK Total	5	49	46

Source: DJRC Primary data

Most of the students are taking their meals in schools by sitting together in a row. In the KBK districts, 49% students take their mid day meals in an open place, whereas 46% took on the school verandah. Only 5% of students take their meals in classrooms. However during the rainy season almost all the students take their meals on the school verandah.

Impact on Nutrition and Health

The nutritional impact of mid-day meals depends both on the quality and the quantity of food provided at school. According to the Supreme Court order, the school meal is supposed to provide 300 k.cal and 8-10 gm of protein. In some instances, it has been found that the quantity prescribed by the Supreme Court is inadequate¹¹. In some cases, the meal served does not even meet the Supreme Court directive. Further, there is bound to be a difference in the dietary requirement of children of various age groups. This fact has not been taken into consideration while fixing the quantity of

¹¹ Some portion from this nutrition part has been derived from: Reetika Khera, "Mid-Day Meals in Primary Schools, Achievements and Challenges", Economic and Political Weekly November 18, 2006, Vol XLI, No 46

food. Also the quality of meals should meet certain hygiene standards, as there have been some cases where students have fallen ill due to the poor quantity of material.

As requirement of food for different age groups varies, there is variation in calorie consumption. If we analyse the calorie consumption of primary school students through MDM scheme, it is very low as compared to their requirement. From the table no. 1.12, 1690 k.cal is required for the age group of 4-6 years. But only 300 k.cal is consumed from the mid-day meal. On an average, they are consuming an additional 400 k.cal in their home, which takes the total calorie consumption to 700 k.cal per capita per day. Here they need an additional 990 k.cal per day to meet their requirement. In the age group of 7 to 9, the per capita calorie requirement is 1950 k.cal. On an average they consume 590 k.cal at their homes. In this age group they need an additional 1060 k.cal to meet their requirement. Again in the 10 to 12 years age group, they need an additional 932 k.cal per capita per day to meet their requirement. The above figures indicate that the very existence of children on such calorie deficient diets is doubtful. However, it's quite probable that they may miss out on daily requirements, but compensate calorie deficiency on days when there is an abundance of food.

Table No. 1.12: **Calorie Consumption and Requirement of Primary School Students from MDM and Household Consumption**

Age Groups	Calorie Required ¹²	Calorie through MDM ¹³	Total Calorie Consumed including MDM ¹⁴	Deficit Calorie
4 to 6 years	1690	300	700	990
7 to 9 years	1950	300	890	1060
10 to 12 Years	2080	300	1148	932

If the meal is a supplement to food served at home, the nutritional impact is not very high in the cases where the quality of mid-day meal served is inferior than that the quality that served at home. Further economic status of families of children governs what impact the meal has in terms of nutrition. It would be a supplement for poor families and a substitute for children of higher income groups. Provision of micro-

¹²Nutrition profile of community- Orissa, National Institute of Nutrition, Indian Council of Medical Research, Hyderabad, 2002

¹³ Calorie is taken only through MDM (per capita per day)

¹⁴ Average calorie consumption is taken only in Koraput district.

nutrients, such as, iron, vitamin A and iodine and deworming tablets are simple and low-cost health interventions that can be fruitfully combined with mid-day meals.

Facilities for Water

Clean water is essential for cooking a safe and healthy meal as well as for washing hands and utensils for cooking and eating. Drinking and cooking water should be clean and safe for all. Almost all sample schools were found to have good water

Table No. 1.13: **Source of Drinking Water**

(Figures are in Percentage)

Sl. No.	District	Pipe water	Tube well
1	Bolangir		100
2	Kalahandi		100
3	Koraput		100
4	Malkangiri		100
5	Nabarangpur		100
6	Nuapada		100
7	Rayagada	17	83
8	Sonepur		100
	KBK Total	2	98

Source: DJRC Primary data

facilities for water. Water required for cooking is taken from tube wells. In some cases tube wells are available within the school campus, whereas in case of others, it is available 20-50 meters away from the school. In the case of residential schools, tubewells were found within the school boundary. In the cases where well water is available, it is being used for irrigation purposes to develop kitchen gardens now, though prior to the scheme it was being used solely for drinking purposes. It was found that 98% of the schools have tube wells within the campus or near the school. In Raygada district, one school among the sample schools was found to be connected with pipe water supply.

Infrastructure Facilities

A programme/project can only be successful when there is a good infrastructure. The infrastructure facilities under mid-day meal scheme include water facilities, kitchen facilities, storage facilities and manpower.

Kitchen Facilities

For good hygiene a clean and safe kitchen is a necessity. Generally in rural areas food is cooked in an open space or temporary shed. Sometimes due to lack of care, the preparation becomes unhygienic for which the students have gone sick after taking the meal. The meals cooked under the scheme are no exception to such incidents. To avoid such incidents, the Government has declared that the headmaster of the concerned school will first taste the meal and then it would be served to the students.

This process is partly¹⁵ implemented in the KBK districts. The teachers taste the cooked meal not only hygiene purpose, but also to taste the quality of meals prepared. Nearly 20% of the teachers of the sample schools taste the meal before the students take it.

From the primary sample survey, it has been found that 67% of schools have permanent cooking sheds in the KBK districts. In the case of Nabarangpur district, all the schools have permanent cooking shed. Where there is no permanent cooking shed the school verandah, AWC centre, cook's house, open space and temporary sheds are used for cooking. Temporary sheds¹⁶ and open spaces account for 20% of total cooking premises whereas school verandah, AWC and cook's house account for the remaining 13 percent. Permanent cooking shed is attached to the school building. Temporary sheds are not very safe from the point of view of hygiene as these are outside the school building and likely to get infested by dust, dry leaves and insects.

Table No. 1.14: **Availability of Permanent Cooking Shed**
(Figures are in Percentage)

Sl. No	Districts	No. of Schools
1	Bolangir	83
2	Kalahandi	50
3	Koraput	50
4	Malkangiri	83
5	Nabarangpur	100
6	Nuapada	83
7	Rayagada	50
8	Sonepur	33
	KBK Total	67

Source: DJRC Primary data

Storage Facilities

A proper storage facility can maintain the quality of food grains for an extended period. In the case of mid-day meal programme, there is no fixed provision for storage facilities. Sometimes this creates problem at the time of cooking. There are complaints by most cooks that the dal takes a lot of time and fuel to boil. The reason cited for this is that dal is stored in jute bags and kept on the floor and it takes a long time to cook due to the moisture content it absorbs. Further, dal is locally supplied and is of poor quality in comparison to rice. Consequently the quality of Dalma¹⁷ is adversely affected. The cooks and teachers suggest that there should be an

¹⁵ Partly implemented: When researchers were in the field, the order was circulated by the Government. But all the headmasters were not aware of it.

¹⁶ Temporary sheds refer to the sheds which is totally separate from the school building. The roofs of the temporary shed are made of some dry branches and leaf of small plants.

¹⁷ Dalma: Mixture of cooked pulses and vegetables (potato, tomato, brinjal, pumpkin, papaya cooked with dal at a time)

aluminum/plastic container to store the food grains and dal. This will improve the quality of Dalma and save time and fuel. In the case of rice, such a problem does not arise, because the quality of rice is good and also it is procured from the nearest FCI depot every month where the storage facility is very good.

The food grain is stored in 35% of the cases in school premises, in 58% of the cases with SHGs and in 6% of the cases either in the NGO Secretary's house, teacher's house or the village godown. The storage facilities are safer in the hands of SHGs in comparison to schools as there are chances of theft in school premises. At the time of rain, there is no one to look after the food material. However, with the SHG, the material is safe even under adverse weather conditions. The SHGs also opined that they clean the rice and dal before cooking.

Table No.1.15: **Storage Space for Food Grains in KBK districts**

(Figures are in Percentage)

Sl.No.	District	In School premises	In NGO Secretary's house	In SHG Groups	In Teacher's house	In Village godown
1	Bolangir	66	17	17	-	-
2	Kalahandi	66	-	17	17	-
3	Koraput	-	-	83	-	17
4	Malakangiri	50	-	50	-	-
5	Nabarangpur	33	-	67	-	-
6	Nuapada	33	-	67	-	-
7	Rayagada	33	-	67	-	-
8	Sonepur	-	-	100	-	-
	KBK Total	35	2	59	2	2

Quality of Foodgrain

The quality of rice is good in all respects as rice is collected from the FCI godowns. But in the case of dal, all the cooks complain about the quality. In all sample schools of the KBK districts, it was found that the quality of dal is very poor for most of the year. Good quality of dal is supplied only at the time of production between the months of January and April.

Utensils

Government supplied aluminium cooking utensils to every school under mid-day meal scheme at the inception of the programme. Inquiries revealed that in the sample

schools cooks and teachers are dissatisfied with adequacy of utensils presently available for cooking enough food for the children enrolled.

There is no supervision to examine whether the utensils are adequate for any particular school or not. The number of students to be enrolled in a particular school is not fixed. So when the number of students increases it creates problems for the cook with the utensils supplied earlier. Nearly 12% of the schools in the KBK districts faced the problem of insufficient cooking utensils. In one of the schools of Nabarangpur district, rice is being cooked twice in the same piece of aluminum utensil daily. About 4% of schools face the problem of cooking both rice and dalma in the same piece of utensil.

It was observed that in 4% of schools, most of the utensils were damaged. In Borigumma block of Koraput district, a school named Jujhari Sevashram was found to have no cooking utensils of its own. All the utensils supplied had already been damaged. So the cooking utensils for the mid-day meal are arranged on rental basis. The utensils are arranged from the village @ Rs.30 per month. The charge of MDM has been given to village SHG for which the rent is paid by the village SHG out of its own funds.

In 8% of schools where utensils are damaged, the headmasters take initiative by purchasing necessary utensils from the school contingency fund. In such cases, the programme runs smoothly. Observing these problems, specifically delay in boiling dal, DPEP has provided a pressure cooker to each school covered under the scheme in Laxmipur Block of Koraput district. In this Block, in 80% of schools, the programme is conducted by SHGs. The SHG members had complained of the problem of cooking utensils to the Social Education Organiser. Subsequently funds for pressure cooker were sanctioned by the BDO and SEO to each school in Laxmipur block from the school contingency. Finally, a pressure cooker was provided to each school and the financial resources came from their school contingency fund.

While supplying utensils, the size of utensils required for cooking adequate food as per guidelines was not taken into account. Irrespective of the number of students, the size of cooking utensils remained the same. It appears that shortage of cooking pots and pans is a common problem for MDM programme in many areas of India.

“Shortage of utensils was also a common problem in the sample schools. Some state governments have made a budgetary provision for cooking utensils, but the amounts are small and the funds are often held up. As a result, many schools are constrained to rely on meager utensils donated by the Sarpanch or charitable villagers. Aside from other consequences, inadequate kitchen facilities and utensils tend to sap the motivation of the cooks”¹⁸ At the programme level, there appears to be highly inadequate thinking.

Table No. 1.16: **State-wise Infrastructure Indicators 2003**

SI No	State	Proportion (Per Cent) of schools with a		
		Separate Kitchen	Water Supply	Cooking Utensils
1	Andhra Pradesh	26(20)	44(64)	10(100)
2	Arunachal Pradesh	4	100	100
3	Assam	34(52)	98(80)	100(100)
4	Bihar	5(8)	68(75)	79(82)
5	Chhattisgarh	17(28)	81(87)	100(100)
6	Goa	19	100	100
7	Gujarat	28(34)	0(100)	0(100)
8	HP	0	(82)	100
9	Haryana	2	100(100)	100(100)
10	Jharkhand	16(14)	71(52)	100(100)
11	Karnataka	41(70)	67(76)	33(100)
12	Kerala	(88)	(100)	(100)
13	Madhya Pradesh	3(7)	88(77)	100(100)
14	Maharashtra	2(6)	25(76)	13(8)
15	Mizoram	16	51	100
16	Nagaland	not needed' b	N/A	100
17	Orissa	(42)	(73)	-
18	Punjab	0	(100)	-
19	Rajasthan	0	(75)	(40 and 33)
20	Tamil Nadu	100(95)	100(100)	100(100)
21	Uttar Pradesh	(74)	(89)	-
22	Uttaranchal	98(100)	85(99)	98
23	West Bengal	-(30)	-(68)	-

a- Figures in bracket indicate the relevant proportion for 2005

b- According to the state Government (on the grounds that cooking has been outsourced to village education committees).

Source: Reetika Khera, “Mid-Day Meals in Primary Schools, Achievements and Challenges”, *Economic and Political Weekly*, November 18, 2006, Vol XLI, No 46

¹⁸ Jean Dreze, Aparajita Goyal, “Future of Mid-Day Meals”, *Economic and Political Weekly* November 1 2003, Vol XXXVIII, No 44

Fuel

Efficiency in cooking (for cooks) depends upon the type of fuel being used. In other states like Chhattisgarh and Rajasthan firewood is the main source of fuel with a provision of 0.50 paise per student per day. In Karnataka cooking gas or stoves are provided. In the case of Orissa, firewood is the only option to cook mid-day-meals with a provision of only 0.16 paise per student per day for both fuel and stationery. In most of the cases, when MDM was in the charge of headmasters, no payment has been made to them for their mid-day meal expenses (for fuel and stationery¹⁹) for two years in succession, which demotivates them from taking an active part in the scheme.

In almost all sample schools, the cooks were found to be dissatisfied due to irregular and insufficient supply of funds for fuel. In the cases when the fund allocated for firewood is not sufficient, the cooks collect firewood from the forests. This was observed to be the situation in 10% of the schools where the cooks collect firewood throughout the year. They are not paid any additional amount for this purpose.

Staff

In the case of mid-day meals in Orissa, a cook and a helper are appointed per school. The meal is cooked every working day even when the cook is absent. When the cook is absent, the helper takes charge of cooking the meal. Generally, the cooks come to school at 11:00 AM. First they wash the utensils. At around 11:30, they start cooking the meal. The cooking process takes about 2 hours. The meal is served to the students at 1:30 PM. After the children finish their meals, the utensils are washed again. The cooks collect firewood either in the morning prior to coming in the school or in the evening after the school period ends. There is a mutual understanding between the cook and the helper. In general, cooks are paid Rs 200 per month whereas the helper receives Rs 100 per month. In some cases, the total salary is equally divided between the cook and helper i.e. Rs 150 per head per month.

When there is problem regarding the cook in the schools being managed by SHGs, the SHG members cook food by themselves. A rotation policy is in place among the SHGs for cooking. One member cooks for one month followed by another for the

¹⁹ Stationary: Cooking Condiments for MDM (spices)

next month. About 25% of the schools where MDM is managed by the SHGs, the SHG members are found cooking on rotation basis in KBK districts. The SHGs are paid for the fuel and cooking charges every 2 to 3 months.

In comparison to other states, Orissa is at the bottom in terms of remunerations for cooks. In the case of Tamil Nadu, the monthly remuneration of the kitchen personnel is the highest where Rs 2105.00 is paid to an organizer, Rs 1160.00 to a cook and Rs 880.00 to a helper per month²⁰. In Orissa, cooks get Rs 200.00 and helpers get Rs 100.00 per month. The amount paid is highly inadequate and exploitative when the minimum wage per day is Rs 70. To pay Rs 200 per month for a cook violates all norms. Table No.1.17, provides the details about the remuneration of the cooks in different States.

Table No.1.17: **Nodal Department and Cooking Costs for Mid-Day Meals**

State	Main Implementing Agency	Cooking costs (Rs/Child/day)	Remuneration for cooks(Rs/Month),Unless Specified Otherwise
Andhra Pradesh	-	2.00(upto 50 children),1.75(51-100 children),1.50 (>100 children)	-
Bihar	Educational Department	1.64	2500
Chhattisgarh	Educational Department	2	Rs 15 per day
Delhi	MCD and NDMC	2	
Gujarat	Educational Department	2.44*	500(Organizers);250(cooks);175(helpers in rural areas).1500,800 and 500 respectively in urban areas
Haryana	Directorate of elementary education	1.43	Rs 300-700 depending on child enrollment
Himachal Pradesh	Department of elementary education	2.50*	Between Rs 100(for less than 5 children) and 400 for more than 271 children
Jharkhand	Department of Primary education	2	-
Jammu & Kashmir	Education	1.02	500
Karnataka	School development and management committee(SDMC)	1.58	650(head cooks);450(cooks);400(assistant cooks);300(helpers)

²⁰ Reetika Khera, "Mid-Day Meals in Primary Schools, Achievements and Challenges", Economic and Political Weekly, November 18, 2006, Vol XLI, No 46

State	Main Implementing Agency	Cooking costs (Rs/Child/day)	Remuneration for cooks(Rs/Month),Unless Specified Otherwise
Kerala	Director of public instruction	3	500
Madhya Pradesh	Panchayats and Rural Development in non-tribal areas, department of tribal welfare in tribal areas and Department of urban administration in urban areas.	1.28(rural) and 1.56(urban),in wheat-eating areas 1.14(rural) and 1.27(urban), in rice eating areas	Rs 20 per day in rural areas and Rs 25 per day in urban areas
Maharashtra	Education Department	1.75(1-75 children)1.50(76-250 children) 1.25(251 or more children)	-
Orissa	-	2.82 +	200(cooks) and 100(helper)
Punjab	State monitoring committee	1.7	-
Rajasthan	Rural Development	2	-
Tamil Nadu	Rural Department	2.19 to 2.34	2105(organizers),1160(cooks) and 880(helper)
Utter Pradesh	Basic Education	1.57	upto 800
Uttaranchal	Educational Department	2	1-25 (Rs 250); 26-50 (Rs 350) and 51 (Rs 450); sahayika (Rs250)
West Bengal	Educational Department	1.9	Rs 400 plus 10 paise per day per child

Notes: * Includes honorarium and administration costs

+ Includes food grains, transport subsidy and establishment overheads.

Source: Reetika Khera, "Mid-Day Meals in Primary Schools, Achievements and Challenges", *Economic and Political Weekly* November 18, 2006, Vol XLI, No 46

Teacher Class Ratio

Along with infrastructure, teachers are important factors in primary education as they are the backbone of educational developments. Quality education cannot be achieved without adequate number of qualified teachers. As teachers in Orissa are involved in many important programmes like population census, BPL survey and election duty in addition to teaching, the number of teachers should be such that they can manage teaching and non-teaching work simultaneously with out compromising on efficiency.

Number of teachers per class is one of the important factors in terms of improving the quality of education. It was found that in one school each in Nuapada and Sonepur districts there is only one teacher for five classes. Since it is difficult for one teacher

to manage five classes in separate rooms, the students of all the classes are made to sit class wise in a single room fully packed. From the sample survey, it is found that in 4% of the schools, there is only one teacher. The teacher-class ratio is the best in the case of Nabarangpur district where there is one teacher per class. In Kalahandi district, the teacher class ratio is 1.17 whereas in Bolangir district, it is 1.36. Apart from the above mentioned districts, the teacher class ratio is more than 1.5 in rest of the districts. In Koraput and Sonepur districts, the ratios are 2 and 2.13 respectively. In the KBK region as a whole, this ratio is 1.52.

Table No.1.18: **Student teacher and teacher class ratio in KBK districts**

Sl. No.	District	Student Teacher Ratio	Teacher Class Ratio	Student Class Ratio
1	Nabarangpur	39	1.00	39
2	Kalahandi	28	1.17	24
3	Bolangir	29	1.36	21
4	Rayagada	36	1.58	23
5	Malkangiri	36	1.71	21
6	Nuapada	36	1.88	19
7	Koraput	34	2.00	17
8	Sonepur	44	2.13	21
	KBK	35	1.52	32

Source: DJRC Primary data

Student Teacher Ratio

The number of students per teacher is a vital factor for effectively providing imparting instructions. It is important to know the student teacher ratio in these districts under study. The student teacher ratio is good in two KBK districts, Bolangir and Kalahandi with 29 and 28 students respectively per teacher as compared to the KBK average of 35 students. In Bolangir, Koraput and Kalahandi districts, the student-teacher ratio falls below the KBK average whereas in the remaining 5 districts, the ratio is above the KBK average. In the case of Sonepur district, the ratio of 44 is the highest among all the KBK districts.

Student Class Ratio

Number of students per class is not very high in the case of KBK districts. It is found that in KBK region as a whole there are 32 students per class. Only Nabarangpur has

a corresponding ratio of 39, exceeding the KBK ratio. In the remaining seven districts, the ratios fall below the KBK ratio.

Indirect Effects of the Scheme

An indirect effect of the involvement of officials at the school level is that it has led to a decline in food insecurity of children in general and of tribal children in particular. It has been observed in the field that the villagers recently are more aware of the steps taken by the Government to reduce food insecurity among the students of class1-V. After the implementation of the scheme, people have developed interest in education.

Vegetables are a major component in the dalma cooked in MDM. Village farmers are interested to grow vegetables in their own field. Sometimes villagers sell their vegetables to SHG members at very reasonable prices for mid-day meal. Farmers are interested in raising more vegetables to sell them in the market. If the amount allocated for vegetables in MDM is increased farmers would be willing to increase vegetable production to fulfill the increase in demand by supplying vegetables to schools.

Achievements of SHGs

A number of Women Self Help Groups have been formed with Government and NGO initiative leading to empowerment of women. These SHGs are interested in generating income by engaging their members in cultivation in groups, pisciculture through the supply of agricultural implements to farmers on a rental basis. Such initiatives have also improved confidence of women and led to many improvements in social sectors. These SHGs have been able to restrict the opening of liquor shops leading to lower consumption of liquor. SHGs also promote family savings and advance micro-credit. Such SHG initiatives have prompted the government to involve SHGs for proper implementation of the MDM scheme. In all KBK districts SHGs have taken initiatives to take charge of the scheme wherever possible.

Apart from SHGs, some NGOs have also taken initiatives in MDM scheme. In Nabarangpur district, 50 schools have been handed over to the NGOs, whereas in Malkangiri district in 25 schools MDM schemes are being implemented by the NGOs. The performance of SHGs in providing MDM is encouraging and the number of

SHGs involved in the programme is increasing. In Nabarangpur district, MDM scheme in 97% of the schools is in charge of the SHGs, in 2% of schools it is handled by the local NGOs located in the urban areas whereas only about 1% of schools, it is taken care of by the headmasters of the schools. An NGO named CO-IDEA has created 25 schools in this district where dropout students and child labourers from nearby villages are admitted and start their study from class-I. These schools have been included in the MDM scheme.

Table No.1.19: **District wise Percentage of Schools handled by SHGs in KBK Districts**

Sl. No.	District	% of Schools
1	Bolangir	37
2	Kalahandi	69
3	Koraput	60
4	Malkangiri	67
5	Nabarangpur	97
6	Nuapada	50
7	Rayagada	64
8	Sonepur	75
	KBK TOTAL	64

Source: DSWOs of the KBK districts

Leakage

1. In spite of allegation of corruption on a large scale, no villager was willing to give any written complaint against teachers. An example is the 'leakage' of grains in transit from the FCI godowns and schools, or the furtive replacement of high quality grain with low quality grain by the enterprising intermediaries.
2. When the food grain is available in the school campus, the amount to be cooked is decided by the teacher who is in charge of the scheme. As an example, 20gram of dal is allocated per student per day but no weighing machine was found in any sample villages. Although ADA (a measure) is used to approximate the weight of food grains, it doesn't provide the accurate weight. Thus in effect, there is no supervision over the amount of material being provided.
3. According to the officials and teachers, mid-day meal is cooked on the basis of daily attendance. If attendance records are not maintained for every day, it is obvious that there are no fixed criteria for the amount to be cooked. In the sample area, it was found that some schools are maintaining attendance regularly during the first period. But in 5% of schools number of students attending school was being filled up while the team was holding discussions

with the headmaster around mid-day. It was observed that in some schools attendance had not been recorded in the attendance register even by 12:30 PM. This leaves scope to manipulate records showing higher attendance and higher utilization of grains while actually lower quantities are used as per actual allocation.

From time to time, research and press report leakages from the scheme in many states including Orissa. The way the scheme is managed, provides for leakage, specifically where monitoring is weak.

Sometimes the media reports various malpractices. In a school in Nabarangpur district, there is huge fluctuation in the daily attendance of the students. When the survey team reached the school at 11:30 A.M., nineteen students of class five were found to be present on that particular day, whereas attendance on the previous days for the same class was more than fifty. To validate the actual number of students present on the day of survey, the register of class V was adjusted to equalize the number of students actually present in the class. At 12:30 P.M., the attendance register was re-filled and brought to the survey team for check up. The scheme was in charge of a SHG in this school.

To avoid leakages, the Implementing Agency decided that the charge of MDM should be handed over to the SHGs, where there is supposedly less chance for corruption. But where there is a nexus between the school staff and SHG groups, there is leakage as observed in the above cited case where the charge of mid-day meal was given to the village SHGs. There is need for surprise visits to MDM centres to check such corruption.

Sometimes it has been found that being illiterate, the SHG group members are bound to depend on the teachers for paper work and maintaining records. But when there is a dispute between the teachers and the group members, there is difficulty in maintaining records. The SHGs given charge of MDM scheme should be given necessary training about the scheme as sometimes the members of the group in charge of mid-day meal programme do not even know the cost norms of the scheme.

Suggestions for Checking Corruption

1. In each district, there should be a training programme for the SHGs involved in the programme.
2. Regular supervision of weights and quality of foodgrains as per student attendance by the village committee at the time of preparation of the meal minimises leakages.
3. Adequate remuneration is also important to check corruption and improve quality in mid-day meal schemes.
4. Proper maintenance of attendance is crucial for arresting corruption. The Government should enforce a fixed time for recording the attendance of the students.
5. Grains should be stored by the agency in charge of mid-day meal programme. At the end of the month, there should be a meeting between the group in charge of the scheme, and headmaster regarding stocks, quantity utilised and problems and constraints faced.

Future of Mid-Day Meal

Mid-day meal scheme has enhanced the interest of students in studies. According to the teachers, if the MDM scheme is discontinued, attendance would fall by 50 percent. A similar view is voiced by the parents. Many parents are sending their children to school as the scheme is helping them financially indirectly by the money value of the mid-day meal. All the students, teachers and parents (100%) are strongly in favour of the continuation of the programme due to the benefits in terms of reduction in dropout rate, increased attendance in class rooms and decrease in nutritional deficiency among the children.

BEST PRACTICES

Best Practice-I

Residential Sevashrama Sauliguda, in Maithili block of Malkangiri District, has 160 students continuing their study. There are four teachers for five classes, where teacher class ratio is 1.25. The student class ratio is 32. In this school the number of students per teacher is 40. The students were found to have very good manners and their behaviour is exemplary. The teachers are intensively involved in the education process. According to the headmaster, the dropout rate has been decreasing in the school since the last five years. In the year 1999-00 the dropout rates for boys, girls and both (girls and boys) were 59%, 67% and 61% respectively. Till the current year the dropout rate has decreased up to 35% for boys, 50% for girls and 41% for both. The school is considered to be a model school in terms of the number of working days as there are less local holidays in the school as compared to other near by schools. According to the Child Development Project Officer (CDPO) of Mathili Block, the school remains open on many local holidays when other schools are closed. The team found this to be true as the day on which they visited the school was a local holiday and the school was open while other nearby schools were closed. The students were very responsive and aware, and the teachers very cooperative.

It is one of the best schools in terms of implementation of the MDM scheme among KBK districts. There is a good kitchen garden within the school campus. Various eye catching flowers also improve the scenery of the school. This programme is handled by the village SHG but all the records are maintained by the headmaster. According to the staff, the headmaster is taking personal interest not only in the implementation of the scheme but also in progress of individual students in terms of their education.

The system of Kitchen garden is different in comparison to other sample residential schools. The Kitchen garden is divided into various parts for different vegetables. One part covers Brinjals. (Brinjals are available throughout the year and are an important part of the mid-day meal curry) Another part covers Banana. Lau (gourd) is being produced seasonally. Papaya is also available all over the year.

Tomato is being grown in another part of the Kitchen garden. The part selected for leafy vegetables is divided into sub-parts in accordance with their types. In each part there is a signboard hanging where the name of the leafy vegetable is written. Interestingly, at the back of each signboard the name and class of students who are responsible for taking care of the specific part are mentioned. Whatever vegetables are required are taken from the kitchen garden due to which the quality of the curry is the best among all the sample schools. The quality of rice is also very satisfactory as it is procured from the nearest FCI depot.

The kitchen was found to be very clean and there were sufficient cooking utensils as per the requirement of the school. According to the headmaster there was no discontinuity in the scheme due to a shortage of food materials. Whenever there is insufficient stock of food grain the amount falling short is brought from near by schools or purchased from the market. In case of food material being brought from nearby schools the amount is returned as soon as the next stock of food materials is received. The villagers who were present all agreed with what the headmaster said. Further, they were also satisfied with the education provided to the students by the teachers including the headmaster.

Best Practice-II

Baidyanath Government Upper Primary School, in block Ullunda of Sonapur district has seven classes with a total of 173 students. There are 3 teachers for seven classes, and the teacher-class ratio is 2.33. The student class ratio is around 25. In this school the number of students per teacher is around 58. The dropout rate has decreased consistently in the particular school. In the year 1999-00 the total dropout rate was 47%, where girls' dropout rate was 49% and boys' dropout rate was 43%. By 2004-05 the dropout rate of boys and girls has decreased up to 23% and 26% respectively, whereas the total dropout rate has decreased to 25%. According to the headmaster the attendance with respect to enrolment has been increasing in the school since the inception of the scheme.

In the year 1995, when the mid-day meal programme started the school teachers were in charge of the programme. The programme ran efficiently till it was handed over to a SHG. The quality of the meal became very poor. Some times meals were not

cooked due to disorganization within the group. At other times the quantity of rice was insufficient and below the prescribed norm. There was paucity of vegetables in the curry. This problem was harped upon by the students to the teachers. Keeping these problems in mind, the villagers and teachers called a meeting in the presence of the SHG. After sorting out all the problems in the meeting it was decided that the school staff would again be in charge of the mid-day meal scheme. The headmaster pointed out that the cooking condiments provided per student per day was not sufficient and was also highly irregular. After listening to all the problems the villagers decided that they would provide some vegetables from their own kitchen gardens.

Since then the quality and quantity of curry has improved and increased in comparison to before. Both the Government and Villagers are providing the condiments including vegetables. The quantity of vegetable supply has doubled. Consequently, the students are eating Mid-day meal with interest. Some students are bringing curry from their home and are taking that curry with their mid day meal at school. The problems in terms of lack of intermixing among students due to caste prejudices has been present since the inception of the scheme as a result of which many students refuse to sit and eat together. Caste inhibitions have also declined substantially as more and more students are taking their meal at a common place.

According to the cook, she has been working in the school since inception of the scheme. She dutifully cooks the meal on time on every working day. The cook clearly mentioned that she collects firewood from the forest whenever necessary without any additional payment from teachers. The school has a permanent cooking shed. The cooking utensils were neat and clean. The cook said that she washes the utensils before and after cooking on every working day. The villagers were very responsive. They are of the view that Mid-day meal is running well in the school. However they expressed their concern over the insufficient number of teachers and suggested that more teachers be engaged to provide quality education to the students. Though the number of teachers is less with respect to requirement, the three teachers working in the school are performing well so far as the Mid-day meal is concerned.

CONSTRAINTS**1. Programming Difficulties****(A) Tendering Process**

Rice is supplied through the FCI godown. But in the case of Dal, a local contractor is selected on tender basis for all the KBK districts. The delay occurring in the finalization of tender leads to delay in the supply of dal. There are instances when there was no supply of dal for one and half months and the students were provided only rice in their meals. In Turekela Block of Bolangir district, the teachers of Dhamandanga U.P School complained about the irregular supply of dal in the presence of the Block Development Officer and the survey team. According to the BDO, delay in supply of dal is the only cause of delay in tender finalization.

(B) Problems in the Implementation of Change in Cost Norms from period to period

Changes in cost norms initiated by the Central Government are implemented by the W & CD Department and conveyed to the district officials. However, since the implementation at the grass-root level lies with the SHGs most of whose members are uneducated and belong to Scheduled Castes and Tribes, it is difficult for them to understand the intricacies of the various changes. This causes confusion and leads to delay in implementation. Hence, though the changes in cost norms have as their objective the improvement of the scheme, frequent changes become hurdles in smooth functioning of the programme. In the KBK region it was seen that there were changes in cooking condiment norms three times during the evaluation period. Three letters (1) letter no 18274 dated 24.08.2006. (2) letter no 21026, dated on 5.10.2006 (3) letter no 22896 dated 6.11.06 were circulated by the W & CD Department to all the collectors regarding the changes in either quantity of food grains or cooking condiment norms (see table no. 1.20). A letter was circulated conveying the serving of eggs twice in a week. This decision was suddenly altered by another letter, within a month, stating the return to the earlier status as regards to serving of eggs.

Table No.1.20: **Letters of Changes in Cost Norms of MDM Scheme circulated by the Women & Child Development Department to All Collectors**

SI No	Name of the item	Letter No 18274		Letter No 21026		Letter No 22896	
		Date-24.08.2006		Date-05.10.2006		Date-06.11.2006	
		Quantity	Price	Quantity	Price	Quantity	Price
1	Supervision Charge	-	Rs 0.35	-	Rs 0.35	-	Rs 0.35
2	Dal	25gm	Rs 0.70	25gm	Rs 0.70	20gm	Rs 0.56
3	Oil	3gm	Rs 0.15	3gm	Rs 0.15	1gm	Rs 0.05
4	Veg, Condiment & Salt	-	Rs 0.26	-	Rs 0.20	-	Rs 0.16
5	Fuel & Stationery	-	Rs 0.20	-	Rs 0.16	-	Rs 0.16
6	T.C	-	Rs 0.10	-	Rs 0.10	-	Rs 0.10
7	Egg	-	Rs 0.38	-	Rs 0.38	-	Rs 0.76
8	Micronutrient	-		-	Rs 0.10	-	
	Total	-	Rs 2.14	-	Rs 2.14	-	Rs 2.14

Source: DSWO, Koraput

N.B. Bold figures indicate change in cost norms

From the above table it is found that the cost of vegetables, condiments & salt is decreasing from the initial letter no 18274, dated 24.08.2006 to letter no 22896 dated 06.11.2006. Again there is a change in cost norms of oil, dal and fuel and stationery.

2. Problems Faced By Students

(A) Irregular Supply and Low Quality of Dal

It has been observed during the field survey that there is irregularity in the supply of dal due to delay in selecting a supplier on tender basis. As a result, the students were being served only rice. In some instances, even when the supply is regular, the stock gets exhausted before the due date. Sometimes the dal supplied is of inferior quality and poor in nutritional content. As a result, it is difficult to boil and when served in the form of dalma (dal mixed with vegetables) it is found to be unappetizing by the students.

(B) Inadequate Vegetable Quantity

Supply of quality vegetables depends on a number of factors like the fund sanctioned for vegetables, fluctuation in prices and seasonal availability. These factors lead to inadequacy and decline in the quality of the vegetables served in the dalma. Low quantity of vegetable makes the quality of dalma poor.

(C) Fixed Menu

The students are not interested in taking the same type of food everyday. Observing this situation, some schools are providing a mix of rice, dal and vegetables i.e. Khechudi. In some areas, it is served two times a week. Students have shown interest towards the serving of Khechudi. The above is a good example of what steps can be taken to change from a fixed menu to a diversified menu such that students will be motivated to come to school.

(D) Provision for Boiled Egg in Place of Egg Curry

In all the schools, eggs are provided in boiled form. However, students prefer egg curry to boiled eggs. In fact, they would be willing to forgo dalma if egg curry is provided. Thus, it is desirable that on particular days when egg is served, the cost of preparation of dalma be diverted towards the preparation of egg curry.

(E) Poor Quality of Rice on Some Days

In a very few cases, the quality of rice provided through FCI does not meet the satisfactory standards. There are cases when students also complain of tracing small insects, worms and small stones in the rice served. This prompts them to discard their meal. As observed in the field, 6% of schools found the problem where insects are found in rice.

RECOMMENDATIONS

The following recommendations will be helpful for smooth and improved functioning of the scheme.

- 1. Allocation of Rice per Beneficiary per day should be Enhanced:** Government is providing 100 grams of rice to each student per day. But the quantity has been found to be insufficient, particularly when there is uniformity in the amount of rice served irrespective of the students' age or class. Therefore, provisions should be made for increasing the quantity of rice allocated on the basis of the requirements of the students of different age groups.
- 2. Preemption in the Selection of Supplier and Increase in the Quality of Dal:** Necessary arrangements have to be made to avoid delay while selecting the supplier of dal during the finalisation of tender. Supply of good quality dal should be ensured. Further, the supply of dal should be regular i.e. it should be supplied before the stocks gets exhausted.
- 3. Enhancement of the Quantity of Vegetable:** The quantity of vegetables served in the dalma is insufficient. Due to low amount of vegetables, the dalma is not very palatable. To arouse the interest of the students, increase in quantity and quality of vegetables should be ensured.
- 4. Change in the Weekly Menu (Egg Twice):** Presently eggs are being supplied once in a week. Serving eggs twice per week would enhance the nutritional content of the weekly menu and promote interest among the students in coming to school.
- 5. Additional nutrients should be Provided at the end of the schooling day at 4 PM:** The mid-day meal is served around 01:00 to 01:45 P.M. and thus keeps the interest of the students to remain in school up to that period. In all sample schools it has been observed by the teachers that after taking their meals the students lose motivation towards post meal studies and go home. A provision to give additional dry food towards the end of the afternoon session would motivate them to stay in school for the whole session.

6. **Regular Supply of Condiments:** The fund meant for cooking condiments is not provided regularly to the schools. Thus it is imperative that fund supply be regularized and should reach the school at the beginning of every month.
7. **Permanent Kitchen Shed should be Provided where Needed:** Most of the schools have no permanent kitchen shed and store room for which sufficient safe keeping of the food materials not be ensured and infection of the cooked food can be avoided. In most of the cases the food grains are kept in the teacher's house or with the SHGs. So a proper kitchen and storeroom should be built to store food grains.
8. **Supply of Cooking Utensils:** In 12% of schools cooking utensils are inadequate and the teachers have engaged themselves in arranging the same, which ultimately affects the teaching process. Necessary arrangements should be made for timely supply of the required number of utensils to the schools.
9. **Enhancement and Regularization of Fuel Cost:** The funds against the cost of fuel provided to the schools through MDM scheme are not sufficient for the whole month. Another problem identified is that financial resources to meet fuel cost do not reach the schools in time. So there should be an enhancement in the cost of fuel and it should be provided for regularly.
10. **Increase in the Payment to Cook and Helper:** The meager remunerations of the cook and helper amounting to Rs 200 and Rs 100 per month respectively are less than the minimum wage level (summed for a month) fixed by the government and is a cause of dissatisfaction among them. Another common complaint is that the cook and helper are not receiving even this meagre payment on time. In 14% of the sample schools, it is found that cooks have not received their payment for four to five months. So steps to increase and regularize their payment would go a long way in promoting interest in the deliverance of a well-cooked meal.
11. **Payment of Condiment Charges:** The condiment charges are not provided in time. Sometimes the teachers have to pay the condiment charges from their own pocket as the SHGs are not interested to bear the cost. It is pertinent that such expenses should be provided by the implementing agency on a regular basis.

- 12. Encouraging Kitchen Gardens for Better Implementation of the Programme:** Kitchen gardens should be promoted as this helps in increasing the quantity of vegetables. These gardens also reduce dependence on to seasonal availability of vegetables and impact of price fluctuations. As a result, the quality of dalma will be good.
- 13. Recording Attendance at a Fixed Time:** All the schools should register the attendance of students at a specified time. This will help in assessing the amount of food grains and dal to be cooked on that particular day. It is advisable to take the attendance before 11 A.M. after which the necessary amount of food grain should be supplied and cooked.
- 14. Inclusion of M.E. Schools in the Programme where Common Boundary (UGME Schools) Exists:** There are seven classes in the Middle English (ME) schools. Though MDM scheme is only for primary students, it is embarrassing when 6th and 7th class students are denied food along with the primary school counterparts in taking the mid-day-meal. Their inclusion into the programme should be incorporated wherever opportunity and financial situation permits.
- 15. Involvement of NGOs and Other Groups and Officials:** Local NGOs and Village Education Committees should be involved in the supervision of mid-day-meals at the time of cooking. The amount of food grain should be properly weighed and be taken in accordance with the number of students present in the school.
- 16. Impartation of Training to Groups in Charge of the Scheme:** It is found that in 58% of the sample schools, the programme is managed by local SHGs. But it has been found that many SHG members are not even literate. They are not able to understand how to maintain foodgrain accounts and records. Ultimately, the records are maintained by the school teachers. Thus in such cases the purpose of delegating the programme to SHGs i.e. bringing in more transparency is not fulfilled. Taking the above situation into consideration, proper training should be provided to all the groups for smooth functioning of this programme.

CONCLUSION

Universal and nutritious mid-day meals would be a significant step towards the realization of the right to food. It helps to achieve social equity. It is especially encouraging to note that the increase in enrolment, which is a vital indicator of the achievement of the scheme. Although it is difficult to measure retention, but the scheme has bridged the gap between attendance and retention. Due to the programme, the dropout rate is decreasing.

As a whole, the progress of the MDM scheme in the KBK region is satisfactory. Involvement of the SHGs with appreciable performance in this scheme is another major achievement. Most of the parents and teachers are in favour of continuation of mid-day meal scheme. The recommendations, if implemented, will the programme will function better and achieve the desired objectives.

Annexure 1(a): Age Group-wise (4-6 to 10-12 years) Calorie Consumption Compared to RDA

District	Boys 4-6 years	Deficit calculated from RDA (%)	Girls 4-6 years	Deficit calculated from RDA (%)	Boys 7-9 years	Deficit calculated from RDA (%)	Girls 7-9 years	Deficit calculated from RDA (%)	Boys 10-12 years	Deficit calculated from RDA (%)	Girls 10-12 years	Deficit calculated from RDA (%)
Bolangir	1353	20	1786		1870	4	1681	14	1928	12	1971	0
Kalahandi	1268	25	1328	21	1558	20	1699	13	1861	15	1907	3
Koraput	1230	27	1007	40	1239	36	1328	32	1727	21	1386	30
Malkangiri	699	59	1062	37	1112	43	1068	45	1347	38	1363	31
Nawarangpur	1427	16	1440	15	1481	24	1537	21	1899	13	1908	3
Nuapada	1133	33	1135	33	1549	21	1421	27	1867	15	1544	22
Rayagada	851	50	993	41	1228	37	1215	38	1542	30	1416	28
Sonepur	745	56	1103	35	1186	39	1122	42	2040	7	1293	34
Orissa	1198	29	1226	27	1465	25	1484	24	1671	24	1690	14
RDA	1690		1690		1950		1950		2190		1970	

Annexure 1(b) : Age group wise (4-6 to 10-12 years) Protein (gm) consumption compared to RDA

District	Boys 4-6 years	Deficit calculated from RDA (%)	Girls 4-6 years	Deficit calculated from RDA (%)	Boys 7-9 years	Deficit calculated from RDA (%)	Girls 7-9 years	Deficit calculated from RDA (%)	Boys 10-12 years	Deficit calculated from RDA (%)	Girls 10-12 years	Deficit calculated from RDA (%)
Bolangir	31		43		42		36	12	43	20	43	25
Kalahandi	28	7	29		39	5	37	10	46	15	46	19
Koraput	29	3	29	3	29	29	29	29	43	20	33	42
Malkangiri	16	47	26	13	25	39	25	39	31	43	31	46
Nawarangpur	32		38		35	15	41	0	49	9	48	16
Nuapada	26	13	26	13	35	15	32	22	44	19	34	40
Rayagada	22	27	24	20	27	34	28	32	33	39	33	42
Sonepur	16	47	23	23	25	39	29	29	47	13	35	39
Orissa	28	7	30	0	34	17	35	15	40	26	39	32
RDA	30		30		41		41		54		57	

Source: Nutrition Profile of Community Orissa, National Institute of Nutrition, Indian Council of Medical Research, Hyderabad, 2002

**Annexure 2: District-wise Status of Enrolment at Primary Schools of KBK Region
(From 1995-96 to 2004-05)**

District	Boys/ Girls	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Bolangir	Boys	86000	87300	88700	107019	106000	98878	96077	94027	95063	103129
	Girls	65000	66000	67000	71388	71000	81996	86543	85484	89092	96442
	Total	151000	153300	155700	178407	177000	180874	182620	179511	184155	199571
Kalahandi	Boys	84000	85300	86300	98199	98000	87531	126532	82879	94346	107593
	Girls	48000	48700	49300	55363	55000	74720	108199	71029	85218	94952
	Total	132000	134000	135600	153562	153000	162251	234731	153908	179564	202545
Koraput	Boys	55000	51800	56800	71605	65000	63599	84633	85846	106672	103629
	Girls	28000	28400	28800	29069	26000	47350	67980	70782	92635	90290
	Total	83000	80200	85600	100674	91000	110949	152613	156628	199307	193919
Malkangiri	Boys	29000	29400	29900	51577	49000	44577	41082	44232	49098	53889
	Girls	20000	20300	20600	20051	19000	32051	31267	34326	41806	45525
	Total	49000	49700	50500	71628	68000	76628	72349	78558	90904	99414
Nuapada	Boys	34000	34500	35100	48008	48000	84139	40253	42230	72120	48822
	Girls	23000	23300	23700	18205	18000	58978	34968	37605	64148	46344
	Total	57000	57800	58800	66213	66000	143117	75221	79835	136268	95166
Nawarangpur	Boys	54000	54800	55600	76707	77000	48136	72565	72557	39421	84405
	Girls	31000	31500	32100	29203	29000	35818	58183	58200	36492	76277
	Total	85000	86300	87700	105910	106000	83954	130748	130757	75913	160682
Rayagada	Boys	45000	45700	46300	62871	59000	54871	57916	54972	62033	72249

District	Boys/ Girls	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	Girls	27000	27400	27800	26767	25000	39767	46268	43886	54557	64041
	Total	72000	73100	74100	89638	84000	94638	104184	98858	116590	136290
Sonepur	Boys	34000	34500	35000	46546	47000	39546	34983	34256	35335	36729
	Girls	26000	26400	26800	23908	24000	35908	32879	32815	34141	35653
	Total	60000	60900	61800	70454	71000	75454	67862	67071	69476	72382
KBK	Boys	421000	423300	433700	562532	549000	521277	554041	510999	554088	610445
	Girls	268000	272000	276100	273954	267000	406588	466287	434127	498089	549524
	Total	689000	695300	709800	836486	816000	927865	1020328	945126	1052177	1159969
Orissa	Boys	2279000	2209000	2347700	2691184	2647000	2570112	2548061	2490047	2592488	2719302
	Girls	1608000	1631300	1657000	1887313	1858000	2140136	2200631	2154702	2325579	2495493
	Total	3887000	3840300	4004700	4578497	4505000	4710248	4748692	4644749	4918067	5214795

Source: Directorate of Elementary Education, Government of Orissa

Annexure 3: Year-wise Primary Dropout rates (in %) in KBK Districts from 1995-96 to 2004-05

District		1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Bolangir	Both	55	54	53	44	38	37	37	35	29	29
	Boys	52	46	46	40	34	33	33	34	26	28
	Girls	58	61	61	49	43	42	41	37	32	30
Kalahandi	Both	55	68	67	66	63	61	60	63	58	48
	Boys	52	61	60	58	56	54	54	58	53	44
	Girls	58	74	74	73	70	68	66	68	64	53
Koraput	Both	57	51	51	48	46	45	44	18	11	42
	Boys	52	49	48	44	44	43	42	14	13	39
	Girls	62	54	54	53	50	49	47	24	9	45
Malkangiri	Both	56	61	60	57	50	49	48	53	37	48
	Boys	50	56	56	50	50	49	48	50	33	44
	Girls	62	66	65	63	50	49	47	58	41	53
Nawarangpur	Both	57	70	69	66	58	56	52	49	60	53
	Boys	52	66	66	61	54	52	47	54	55	49
	Girls	61	74	73	71	63	62	59	42	66	56
Nuapada	Both	55	71	70	68	54	53	29	55	50	49
	Boys	55	63	62	61	48	47	27	49	47	45
	Girls	56	80	79	75	62	61	32	62	53	53
Rayagada	Both	57	55	54	51	45	44	43	31	33	19
	Boys	53	55	54	49	42	40	40	34	24	15
	Girls	62	55	55	52	50	49	47	32	35	24
Sonepur	Both	62	38	38	26	20	19	19	22	3	7
	Boys	57	33	33	22	20	20	20	33	1	6
	Girls	67	44	43	30	19	19	18	21	4	7
Orissa	Both	52	48	47	44	43	42	41	34	34	32
	Boys	51	45	44	44	44	42	42	32	32	31
	Girls	52	51	51	42	42	41	40	37	35	33

Source: Directorate of Elementary Education, Government of Orissa

Annexure 4: Statement Showing District-wise Flow of Funds in KBK Districts under MDM Programme

District	1998-99		1999-2000		2000-2001		2001-2002		2002-2003		2003-2004		2004-2005		2005-2006	
	Allot	Exp	Allot	Exp	Allot	Exp	Allot	Exp	Allot	Exp	Allot	Exp	Allot	Exp	Allot	Exp
Bolangir	197.84	127.7	152.5	152.5	122.5	122.5	136.1	135.4	123	123	95.28	95.28	115	113.7	501.99	501.99
Kalahandi	13.9	13.9	91.89	91.89	141.2	141.2	127.6	127.6	105.5	105.3	73.09	73.09	116.9	116.9	515.46	515.46
Koraput	100.86	96.17	97.39	97.39	90.18	90.16	91.73	91.73	66.52	66.52	64.13	64.13	102.4	102.4	509.58	397.91
Malkangiri	80.27	80.27	42.44	42.44	60.72	60.72	57.44	57.44	36.3	36.3	53.98	53.98	52.34	52.34	255.21	255.21
Nawarangpur	107.65	104.4	83.39	83.39	77.07	77.07	71.84	71.84	87.23	87.23	59.77	59.77	96.3	96.3	423.57	319.21
Nuapada	36.87	36.87	69.31	69.31	49.29	49.29	56.62	56.62	35.63	35.63	40.78	40.78	69.13	69.13	246.88	246.88
Rayagada	96.19	64.96	55.23	55.23	60.54	60.54	82.23	82.23	32.02	32.02	59.03	59.03	76.93	73.97	353.41	258.63
Sonepur	89.53	89.53	63.91	63.91	46.21	46.21	56.84	56.84	29.01	29.01	46.31	46.31	43.26	43.26	192.4	192.4
Total	723.11	613.9	656	656	647.7	647.7	680.3	679.7	515.3	515.1	492.4	492.4	672.2	667.9	2998.5	2687.69

Source: Women and Child Development Department, Government of Orissa

Annexure 5: District-wise Allocation and Lifting Position of Rice under MDM Programme

(in Quintals)

Districts	Lifting	Lifting	Lifting	Allocation	Lifting	Allocation	Lifting	Allocation	Lifting
	2000-01	2001-02	2002-03	2003-04		2004-05		2005-06	
Bolangir	36133.29	28586.97	36492.91	38334.33	33587.83	41712.48	36769.06	36863.63	36863.6
Koraput	18774.59	26207.5	23813.22	34636.38	28735.59	42029.94	34945.66	37348.78	33613.92
Malkangiri	9822.4	10581.43	14080.35	16711.74	14904.69	20217.18	17158.86	17204.84	15484.43
Nawarangpur	19475.83	24135.98	25241.61	28441.32	27616.08	35912.88	25706.28	28907.46	24647.32
Nuapada	10377.92	14717.44	15631.2	16112.19	14964.84	20383.23	18743.33	18455.91	18455.9
Rayagada	18906.34	20096.7	19273.79	23817.6	20457.24	28902.63	24498.42	29474.16	23549.02
Sonepur	10458	14462.14	13370.75	15273.87	11116.85	16383.42	12727.2	16179.81	12938.24
Kalahandi	16317	27658.6	30250.11	35522.13	29442.48	42998.37	34697.5	35526.56	31973.85
KBK	140265.37	166446.76	178153.94	208849.56	180825.6	248540.13	205246.31	219961.15	197526.28
Orissa	548679.71	800222.94	1052921.28	1233104.67	1143509.45	1346723.16	1035995.19	1041103.2	861315.18

Source: Women and Child Development Department, Government of Orissa

Annexure 6: Status of Students and Teachers in KBK Districts

District	Number of Teachers in a school	Number of Schools	Total Teacher	Total Classes	Total Students	% of Schools from sample school	Class Teacher Ratio	Student Teacher Ratio	Student class ratio
Bolangir	2	2	4	10	200	33.33	2.50	50	20
	3	1	3	5	54	16.67	1.67	18	11
	4	1	4	7	132	16.67	1.75	33	19
	5	1	5	5	170	16.67	1.00	34	34
	9	1	9	7	159	16.67	0.78	18	23
		6	25	34	715	100.00	1.36	29	21
Kalahandi	2	2	4	12	211	33.33	3.00	53	18
	4	2	8	12	219	33.33	1.50	27	18
	5	1	5	5	88	16.67	1.00	18	18
	12	1	12	5	286	16.67	0.42	24	57
		6	29	34	804	100.00	1.17	28	24
Koraput	2	2	4	10	243	33.33	2.50	61	24
	3	3	9	19	272	50.00	2.11	30	14
	5	1	5	7	103	16.67	1.40	21	15
		6	18	36	618	100.00	2.00	34	17
Malkangiri	2	1	2	5	82	16.67	2.50	41	16
	3	1	3	5	175	16.67	1.67	58	35
	4	4	16	26	495	66.67	1.63	31	19
		6	21	36	752	100.00	1.71	36	21
Nawarangapur	3	1	3	3	100	16.67	1.00	33	33
	4	1	4	5	169	16.67	1.25	42	34
	5	3	15	15	628	50.00	1.00	42	42
	6	1	6	5	206	16.67	0.83	34	41
		6	28	28	1103	100.00	1.00	39	39
Nuapada	1	1	1	5	37	16.67	5.00	37	7
	2	1	2	5	62	16.67	2.50	31	12
	3	3	9	15	329	50.00	1.67	37	22
	4	1	4	5	153	16.67	1.25	38	31
		6	16	30	581	100.00	1.88	36	19
Rayagada	2	3	6	15	174	50.00	2.50	29	12
	3	1	3	5	29	16.67	1.67	10	6
	5	2	10	10	474	33.33	1.00	47	47
		6	19	30	677	100.00	1.58	36	23
Sonepur	1	1	1	5	59	16.67	5.00	59	12
	2	1	2	5	85	16.67	2.50	43	17
	3	3	9	17	397	50.00	1.89	44	23
	4	1	4	7	167	16.67	1.75	42	24
		6	16	34	708	100.00	2.13	44	21

Source: DJRC Primary Survey

Annexure 7: Distribution (%) of Children According to Intake of Foods as % of RDA

Foodgrain	% RDA	Age group		
		4-6 years	10-12 years boys	10-12 years girls
Cereals	< 50	6.8	1.7	5.3
	50-70	23.8	36.4	14.5
Pulses	< 50	69.8	69.4	75.6
	50-70	10.2	14.9	8.4
Leafy-Vegetable	< 50	66.8	63.6	61.1
	50-70	7.2	4.1	5.3
Fats and Oils	< 50	88.9	98.3	99.2
	50-70	7.7	1.7	0.8

Source: Diet and Nutritional Status of Rural population, National Institute of Nutrition, ICMR, Hyderabad, 2002

INTRODUCTION

Poverty and illiteracy are two main hurdles in the path of development and every community or region has to deal with them. When planning takes place, priority is given to the eradication of the above two constraints hindering growth of the country, state or region. These constraints are observed, particularly in the underdeveloped communities, such as, Scheduled Castes and Scheduled Tribes. In Orissa, excepting the eastern region comprising the coastal districts, the concentration of Scheduled Castes and Scheduled Tribes is quite substantial in all the other regions namely western, northern and southern regions. Further this concentration is the highest in the southern part of the state comprising KBK districts. In comparison to the other communities, SCs and STs are more backward both in terms of poverty and literacy.

As per the 1997 BPL survey, 71.79% of the families are living below the poverty line in the KBK region, whereas the corresponding percentage for Orissa is 63.37%. The literacy rate in the KBK region is only 43.33% which is below the state literacy rate of 50.51%. Further, the literacy rate of females is only 29.10% in the KBK region as per the 2001 census. The Government has attempted to solve the problems of the KBK region through many programmes.

In Orissa, many programmes such as Antyodaya Anna Yojana, Annapurna Yojana and State Old Age Pension, National Old Age Pension schemes have been launched for the upliftment of BPL families. The Emergency Feeding Programme (EFP) has been specifically launched in the region under the Revised Long Term Action Plan (RLTAP) in the year 1995-96. Observing the poverty status of the KBK districts, the Government decided to provide one cooked meal a day to the old, infirm and indigent persons of BPL families through the above programme. The programme aimed at increasing the nutritional status of the old, infirm and indigent people and thus, in turn, increasing their life expectancy.

OBJECTIVES AND METHODOLOGY

Objectives of the Programme¹

1. To tackle the food distress among the old and indigent population of the families with the most intense poverty.
2. To provide them their basic nutritional needs on a sustained basis to improve their health and nutritional status.
3. To impact the life expectancy in the region.

Objectives of the Study

The following are the objectives of the study.

- To evaluate the extent to which the objectives of the programmes/schemes have been achieved.
- To identify constraints faced by the implementing agency and the extent to which the achievements were affected by the constraints.
- To identify the constraints faced by the beneficiaries and the extent to which these constraints affected benefits.
- To ascertain the special efforts made by the implementing agencies to avoid short fall or accelerate achievements.
- To identify the best practices in the KBK districts
- To recommend specific measures to improve the programmes

Methodology

The study has been based on primary and secondary data collected from different sources. The secondary data on physical and financial achievement till 2006-2007 have been collected from the District Officials and Women and Child Development Department. Primary data has been collected from the sample Anganwadi Centres through specific questionnaires designed for supervisors, beneficiaries, non-beneficiaries, cooks, and ward members. The problems of the programme have been discussed with the officials and beneficiaries at village level.

¹ Revised Annual Action Plan under RLTA for KBK districts 2002-03, Government of Orissa, Planning and Co-ordination Department

From Kalahandi, Nuapada, Bolangir, Sonapur, Malkangiri and Koraput districts, three blocks have been randomly selected. Out of each block, two Anganwadi centres were chosen. However, in the case of Rayagada and Nabarangpur², four blocks have been selected. In Rayagada district one extra block has been taken due to the unavailability of beneficiaries. In all, 49 Anganwadi centres have been selected, 6 Anganwadi centres from each district, except Nawarangapur from which 7 AWCs have been selected. From each center, 1 supervisor, 1 cook, and 7 beneficiaries have been interviewed. Non beneficiaries³ and ward members have also been interviewed. In all 10 respondents have been selected from each centre. In the KBK region as a whole, 504 respondent have been canvassed comprising 370 beneficiaries, 49 supervisors, 49 cooks, 22 non-beneficiaries, and 14 ward members were canvassed. The evaluation study is based on a direct questionnaire method through interaction with the beneficiaries and other personnel. Additional information has also been collected from the district headquarter and government officials. Sample details of Emergency Feeding Programme are given below in the table no. 2.1.

Table No.2.1: Sample details of Emergency Feeding Programme

Sl. No.	District	No. of Block	No. of Anganwadi Centres	Beneficiary	Supervisor	Cook	Non beneficiary	Ward member	Total
1	Bolangir	3	6	47	6	6	2	1	62
2	Kalahandi	3	6	52	6	6	2	0	66
3	Koraput	3	6	42	6	6	5	3	62
4	Malkangiri	3	6	42	6	6	1	3	58
5	Nabarangpur	4	7	42	7	7	4	3	63
6	Nuapada	3	6	55	6	6	2	1	70
7	Rayagada	4	6	42	6	6	3	3	60
8	Sonapur	3	6	48	6	6	3	0	63
	Total	26	49	370	49	49	22	14	504

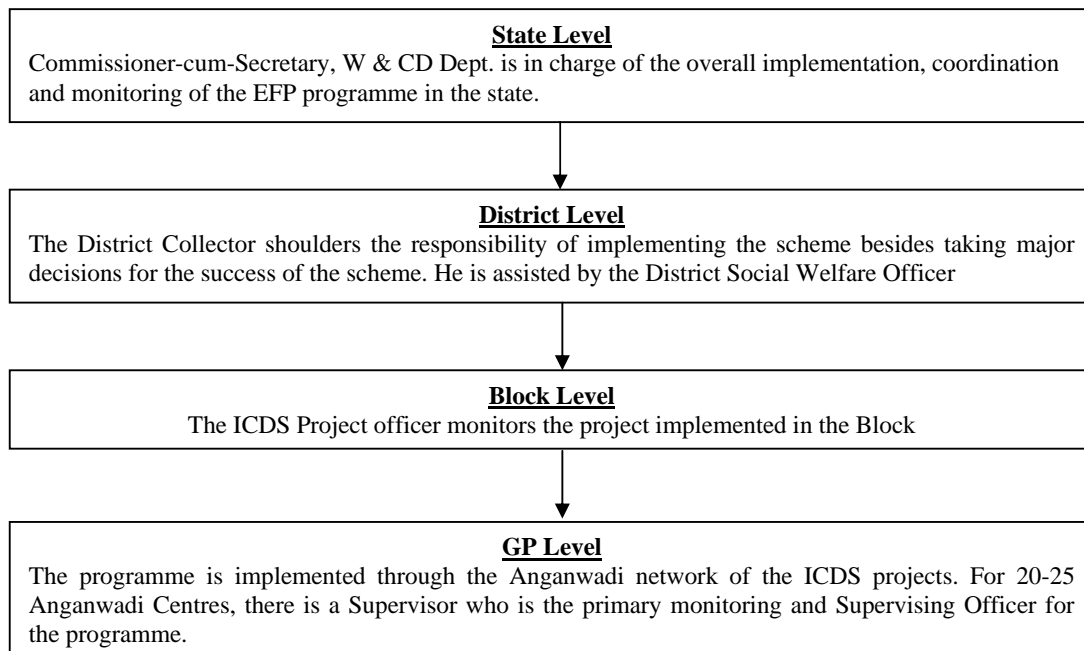
² In Nabarangpur one of the selected AWC had insufficient number of beneficiaries (3). Therefore another AWC from a different block was selected.

³ Non-beneficiaries refer to people over 60 years of age, but not included in the programme

ORGANIZATIONAL STRUCTURE OF THE EMERGENCY FEEDING PROGRAMME

The Emergency Feeding Programme is being implemented by the Women and Child Development Department at the state level. Collectors of the respective KBK districts implement the programme at the district level with the help of the District Social Welfare Officers (DSWOs). The programme is supervised by the Child Development Programme Officer (CDPOs) at the Block level. Supervisors of ICDS projects are in charge of implementing the programme at the village level. AWC workers implement the programme with the help of helper at the village level

Organisational Structure of Emergency Feeding Programme in Orissa



Coverage of the Programme

The Emergency Feeding Programme is being implemented under the Revised Long Term Action Plan. In the KBK districts, the programme was first introduced in 5 districts (Nuapada, Kalahandi, Koraput, Malkangiri, and Rayagada) in the year 1995-96, with a total number of 45133 beneficiaries. Bolangir district was included in this programme in the year 1996-97 for 20000 beneficiaries. Except in Malkangiri and

Rayagada districts, the number of beneficiaries was increased for other districts in the same year, as a result of which the total number of beneficiaries in the KBK region went up to 74,545. Later, Sonepur district was included in the programme in the year 2000-01 with 10000 beneficiaries. Nabarangpur district was included in the year 2001-2002 with 19270 beneficiaries. In the year 2001-02, the number beneficiaries in all the KBK districts were increased to 2 lakh.

Table No.2.2: District wise Number of Beneficiaries under RLTAPE (Emergency Feeding Programme) in KBK Districts

Sl. No.	Name of the Districts	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
1	Koraput	7600	37315	37315	37315	37315	37315
2	Kalahandi	32177	37200	37200	37200	37200	37200
3	Nuapada	26000	21000	21000	21000	21000	21000
4	Malkangiri	8200	14990	14990	14990	14990	14990
5	Rayagada	4000	22840	22840	22840	22840	22840
6	Bolangir	30000	33860	33860	33860	33860	33860
7	Sonepur	10000	13525	13525	13525	13525	13525
8	Nabarangpur	-	19270	19270	19270	19270	19270
	Total	117977	200000	200000	200000	200000	200000

Source: Women and Child Development Department, Government of Orissa

Implementing Mode

Under this programme, one cooked meal is provided daily to each beneficiary through the AWC centre. For each beneficiary there is provision of 200 grams of rice⁴ and 40

Table No.2.3: Cost Norms of EFP

Sl. No	Daily ration component	Quantity (in grams)	Price (in Rupees)
1	Rice	200	1.25
2	Dal	40	1.00
3	Vegetables	30	0.20
4	Oil, Condiments and Salt	-	0.09
5	Transport Charge	-	0.16
	Total		2.70

grams of dal a day. Currently an additional 50 gram of rice is being provided to each beneficiary. As a result, the total cost of the meal provided has risen from Rs.2.70 to Rs.3.03. Rice is purchased

from the nearest FCI Depots and dal is purchased from people or agency quoting the lowest tender. Finance is given to the AWC worker to purchase cooking condiments

⁴ Enhancement of quantity of Rice from 200 gm to 250 gm per beneficiary per day under the Emergency Feeding Programme in KBK districts for the year 2006-07 (from September 2006): Letter No.23997/WCD/IV/-ICDS-III-4/2006, Dtd.21.11.2006 of W & CD Dept., Govt. of Orissa

(vegetables, oil and salt). The Government of India releases funds to the Government of Orissa through Additional Central Assistance (ACA). Required funds are released to the districts by the Government of Orissa. The details of cost norms of the EFP are given in table No.2.3.

Selection Procedure (for Beneficiaries)

Initially, Women and Child Development Department determines the number of beneficiaries to be selected for each district. Within a district, the beneficiaries are distributed among the blocks on the basis of the number of BPL households in the blocks. A similar process is adopted for the Gram Panchayats under different blocks. Initially, at the village level the beneficiaries were selected from the BPL households in accordance with the conditions with respect to old, infirm, and indigent persons aged more than 60 years. But later, the beneficiaries from the APL households, widows, helpless and physically and mentally handicapped persons irrespective of their age and in some cases, orphans were also selected. After ascertaining the number of beneficiaries per Gram Panchayat, a meeting is held in most of the villages where there is an Anganwadi centre to select the beneficiaries. The meeting is organised in the presence of villagers, village head, AWC worker and ward members. They select the persons to be included in the programme. After the approval of the list in the meeting, it is passed on to the supervisors and in turn to the CDPOs. The CDPOs pass on the list to the DSWO. Finally, the list is approved by the Sub-collector of the concerned district. The Sub-collector approves the addition of new beneficiaries to the list. At the inception of the programme, the selection procedure used to take near about a month, but now the procedure is completed within a day.

People receiving old age pension are removed from the EFP list. If a beneficiary dies, a new beneficiary is added to the list⁵ on the same or next day. In some cases, the would-be beneficiaries in the additional list are added to the main list at the time of emergency. The selected beneficiaries are taken into account on the basis of old age and degree of infirmness. Self Help Groups are also playing an active role in village level meetings.

⁵ List of the selected beneficiaries is already fixed in village meeting. In some cases, there is an additional list of the would-be beneficiaries from which a new beneficiary is added if there is a vacancy in the original list.

Financial Status

Table No.2.4: Year wise Allotment and Expenditure of Funds in Emergency Feeding Programme in KBK Districts

(Rupees in Lakh)

Year	Allotment	Expenditure
2000-01	963.32	963.32
2001-02	1461.91	1392.84
2002-03	1016.09	1016.09
2003-04	1717.83	1717.83
2004-05	1971.00	1960.97
2005-06	1971.00	1844.67

Source: Women and Child Development Department, Government of Orissa

Table No.2.5: District-wise Allocation of Rice under EFP for 2006-07

SI No.	Name of the district	Beneficiaries coverage	Monthly allotment of rice @ 6Kgs./head/ month.(MTs)	Additional allotment of rice @ 1.5Kgs./head/month (MTs)	Total (MTs)
1	Koraput	37,315	223.890	55.973	279.863
2	Malkangiri	14,990	89.940	22.485	112.425
3	Nawarangapur	19,270	115.620	28.905	144.525
4	Rayagada	22,840	137.040	34.260	171.300
5	Sonepur	13,525	81.150	20.287	101.437
6	Bolangir	33,860	203.160	50.790	253.950
7	Kalahandi	37,200	223.200	55.800	279.000
8	Nuapada	21,000	126.000	31.500	157.500
	Total	2,00,000	1200.000	300.000	1,500.000

Source: Women and Child Development Department, Government of Orissa

ACHIEVEMENTS

Improving Nutrition

This programme is implemented taking into consideration the poor nutritional status of old people in the KBK region. Most of the tribals go to the forest after taking a liquid food, namely, ragi jau. The person who has no one to depend on is bound to go to forest to collect firewood in an empty stomach. Therefore, the health and nutritional status of the old people goes down. Though one cooked meal per day is not sufficient for a person, still it provides additional nutrition to the beneficiaries. Through the meal, a beneficiary gets 749 k.cal of energy and 21.6 grams of protein along with vital vitamins and minerals. The nutritional deficiency of beneficiaries has decreased due to the programme. However, the calorie consumption through the meal is less than 1/3rd of the daily requirement. In Orissa lunch is the principal meal of the day. In the emergency feeding programme beneficiaries are provided 749 k.cal per meal, as where the requirement⁶ is 2425 k.cal per capita per day. So there is a gap of 1676 k.cal in meeting the calorie requirement. If the beneficiaries get an additional⁷ 749 k.cal from their home or other sources, there is still a gap of 927 k.cal. Health deteriorates during old age due to natural degradation associated with age and debilitation due to increasing frequency of infection. For general diseases like cold and fever medicines are provided to the beneficiaries through the Anganwadi centres. Sometime, supervisors/workers advise the sick to go to hospitals for diagnosis and treatment of diseases.

Table No.2.6: **Improvement in Health of Beneficiaries**

(Figures are in percentage)

Sl.No	District	No Improvement	Significant Improvement	Some Improvement
1	Bolangir	15	-	85
2	Kalahandi	17	-	83
3	Koraput	24	-	76
4	Malkangiri	38	2	60
5	Nabarangpur	43	-	57
6	Nuapada	19	5	76
7	Rayagada	26	-	74
8	Sonepur	17	-	83
	KBK Total	24	1	75

⁶ Nutrition profile of community Orissa, National Institute of Nutrition, Indian Council of Medical Research, Hyderabad, 2002

⁷ Additional calorie consumption is taken from only in Koraput district

Table no. 2.6 shows that 75% of the beneficiaries believe that there has been some improvement in their health due to this programme, whereas 24% of beneficiaries report no improvement. Only 1% of the beneficiaries feel that their health has improved significantly. According to the beneficiaries, what ever nutrition is provided through the programme is not sufficient for significant improvement of health.

Reducing Hunger among the Elderly

Old age and infirmity cause decline in a person’s ability to work. The Emergency Feeding Programme is an attempt towards reduction of hunger among the elderly. A cooked meal is provided 360 days in a year to each beneficiary of the scheme. The interviewed beneficiaries were satisfied with the scheme as it has ensured a free meal everyday whereas previously many of them used to remain hungry. From the sample it is found that 5% of the beneficiaries from the KBK districts said that they remained partly⁸ hungry for one or two days in a month.

Impact on Life Expectancy

From the analysis of primary data, it is found that 84% of the beneficiaries are above 60 years. The remaining 16% were below 60 years, physically and mentally

Table No.2.7: **Rural-Urban differential in life Expectancy at Birth⁸, 1992-96**
(in years)

Area	Total	Male	Female
Rural	56.1	56.4	58.8
Urban	64.7	62.1	66.0

handicapped persons, widows and the helpless. From the above 60 years age group, 41% of the beneficiaries are male, whereas female are 59%.

When the programme was implemented in the year 1995-96, the life expectancy for rural Orissa was 56.1 years. It was found that the rural male and female life expectancies⁹ were 56.4 and 58.8 years respectively. It is difficult to estimate exactly the life expectancy of the old people (above 60 years of age). But it has been ascertained that people benefiting from EFP feel they experience better health than before. The beneficiaries said that they would avail the benefits of the feeding programme till they are alive.

⁸ Partly: From the two meals in a day, one meal was taken.
⁹ Orissa Human Development Report 2004

Social Equity

One of the aims of the programme was collective consumption of the meal irrespective of caste, thus promoting social equity. It was a primary objective of the Government that beneficiaries of all castes would sit together and take meals at the centre which is known as “Spot Feeding”.

There are certain lacunae in spot feeding in that one meal through EFP is not sufficient for the beneficiaries. It is difficult for the beneficiaries to arrange a meal during the night. Due to this, they go to work during the day and come back at 1 P.M. to take their meal at their respective centres. In cases where ‘spot feeding’ is not possible, the family members of the beneficiaries come to the centre and collect the meal for the beneficiary. In some districts, the meal is cooked in the morning whereas in other districts it is cooked at noon. The effectiveness of the programme varies across districts.

From table No.2.8, it is found that in Kalahandi, Koraput, and Rayagada districts meals are provided in some centres during the later part of morning¹⁰ in some centres,

Table No.2.8: **District wise time of serving of meals across various centres**
(Figures are in percentage)

Sl.No	District	Late Morning ⁹	Noon
1	Bolangir	-	100
2	Kalahandi	33	67
3	Koraput	67	33
4	Malkangiri	-	100
5	Nabarangpur	-	100
6	Nuapada	-	100
7	Rayagada	33	67
8	Sonepur	-	100
	KBK Total	16	84

Source: D.J.R.C. Primary Data

taken into consideration by the AWC worker and the time of serving of the meal is changed accordingly.

Quality and Quantity of Foodgrains

Most of the beneficiaries are satisfied with the meals provided to them. For three to four months after the harvesting season, the quality of dal supplied is satisfactory.

¹⁰ Late morning is between 9 am to 11 am

Thereafter, the dal supplied is difficult to fully boil. It is found that in Bolangir and Koraput districts there is an irregular supply of dal. Due to this irregularity, dalma is not prepared on a regular basis in the centres. On such occasions, only rice is served thereby making the quality of the meal very poor and nutritionally deficient. According to the Child Development Project Officers, irregular supply of dal is due to delay in tendering process. Contractor in most cases fails to supply good quality of dal regularly. The quality of rice in general is good as it is purchased from the nearby FCI depot.

Table No.2.9: Satisfaction with the Quantity and Quality of Foodgrain

(Figures are in percentage)

Sl. No	District	Satisfied with the quantity		Satisfied with the quality		
		Dissatisfied	Satisfied	Good	Satisfactory	Unsatisfactory
1	Bolangir	32	68	-	98	2
2	Kalahandi	48	52	2	90	8
3	Koraput	10	90	2	96	2
4	Malkangiri	36	64	2	98	-
5	Nabarangpur	12	88	7	88	5
6	Nuapada	58	42	-	80	20
7	Rayagada	60	40	2	86	12
8	Sonepur	65	35	-	81	19
	KBK Total	41	59	2	89	9

Source: DJRC Primary Data

It is observed (in Table No.2.9) that 59% of the beneficiaries are satisfied with the quantity of the meals provided, whereas 41% are dissatisfied. In Koraput district, 90% of beneficiaries are satisfied with the quantity, whereas in Nabarangpur the corresponding figure is 88%. Satisfaction with the meal is the lowest in the case of Sonepur districts where only 35% of the beneficiaries are reported to have been satisfied with the meals. In the case of Sonepur, Kalahandi, and Nuapada districts the revised quantity of rice to be supplied as per the order came into effect after the field visit to these districts had been completed.

In terms of quality, 91% of the beneficiaries opined that the meal was good or satisfactory whereas 9% said that they are dissatisfied. The dissatisfaction with the meal is primarily due to the poor quality of dal supplied to the centres. Unsatisfied beneficiaries demand eggs, non-vegetarian items, fruits or increase in quantity of the meals served.

Infrastructure Facilities

Infrastructure facilities play a pivotal role in the success of a programme. In Emergency Feeding Programme the required infrastructure is similar to that of MDM programme. In each cooked meal programme, infrastructure, such as, cooking shed, water facilities, fuel, and storage facilities are essential for smooth running of the programme.

Cooking Shed

In the Emergency Feeding Programme, food is being cooked in the kitchen shed of

Table No.2.10: **Availability of cooking premises**

(Figures are in percentage)

Sl.No	District	Temporary shed	Permanent shed
1	Bolangir	17	83
2	Kalahandi	17	83
3	Koraput	-	100
4	Malkangiri	17	83
5	Nabarangpur	-	100
6	Nuapada	83	17
7	Rayagada	33	67
8	Sonepur	17	83
	KBK Total	22	78

Source: DJRC Primary Data

AWCs. Where there is no kitchen shed meal is prepared in temporary shed¹¹. Table No.2.10 shows that 78% of AWCs have permanent cooking shed whereas, 22% have temporary cooking sheds. In Koraput and Nabarangpur districts all the centres under the primary sample survey had permanent cooking shed. Where there is no cooking shed, the veranda of the AWCs is

used for the purpose. In such cases, AWC building should be made available for cooking.

Water Facilities

Almost all AWCs have access to clean water. In some cases where there is a common boundary for the schools and the centres, there are tube wells within the boundary. In other cases, the tube wells are about 30-50 meters away from the centre. In

Table No.2.11: **Sources of Drinking Water**
(Figures are in percentage)

Sl. No	District	Tap	Tube well
1	Bolangir	-	100
2	Kalahandi	17	83
3	Koraput	-	100
4	Malkangiri	-	100
5	Nabarangpur	14	86
6	Nuapada	17	83
7	Rayagada	17	83
8	Sonepur	-	100
	KBK Total	8	92

Source: DJRC Primary Data

¹¹ Temporary sheds refers to a shed which is totally separate from the AWC centre. The roof of the temporary shed is made from some dry branches and leafs of small plants. Again temporary shed include AWC verandah. The cooks' house is used where there is no AWC building in the village.

cases where there are no tube well facilities, pipe water is supplied. In the study it was found that in four districts namely, Kalahandi, Nabarangpur, Nuapada and Rayagada there are pipe water facilities supplying water to the AWCs. In the KBK districts 8% of AWCs are connected with pipe water facility. In 92% of the cases, there are tubewells within the vicinity of the centres.

Utensils

In each centre, there are two cooked meal programme running simultaneously. In the morning first halwa is prepared for pre school children followed by cooked meals for

Table No.2.12: **Availability of cooking utensils**
(Figures are in percentage)

Sl. No.	District	Unavailable	Available
1	Bolangir	-	100
2	Kalahandi	-	100
3	Koraput	-	100
4	Malkangiri	-	100
5	Nabarangpur	-	100
6	Nuapada	-	100
7	Rayagada	17	83
8	Sonepur	-	100
	KBK Total	2	98

Source: DJRC Primary Data

the old, infirm, and indigent persons. There are no separate cooking utensils for these programmes. The survey showed that most of the centres were found to have adequate cooking utensils. Only in Rayagada district, inadequacy of utensils in one centre was observed.

Fuel Provision

Provision of fuel is a necessity for any cooking programme. However, in the case of Emergency Feeding Programme, there is no such provision for fuel. This is a major lacuna in the programme and this view is shared by most of the officials and cooks. In 16% of the cases, firewood (fuel) is collected from the forest as per seasonal availability. In all AWCs, fuel is purchased from the market when firewood is not available. The fuel expenses are met out of the fund allocated for dalma. This affects the quality of the dalma. Sometimes, the number of beneficiaries availing the EFP meal in a centre is only 3 to 4 (cases cited from Nabarangpur). This makes the expenses incurred for fuel perfunctory. In AWCs where the number of beneficiaries is less, two or more AWCs can be combined to reduce fuel costs.

From table no. 2.13, it is found that in Bolangir and Nabarangpur districts one AWC each has less than five beneficiaries. In Nabarangpur district 34% centres have less

than ten beneficiaries. In the KBK districts 4% of AWCs have less than 10 beneficiaries. 62% AWCs have beneficiaries in the range of twenty to forty.

Table No.2.13: **District-wise Number of Centres as per the Range of Beneficiary**

Sl. No.	District	Total No. of Sample AWCs	Number of Beneficiary Range				
			<5	<10	>10 and <20	>20 and <40	>40 and Above
1	Bolangir	6		1		5	
2	Kalahandi	6			1	3	2
3	Koraput	6			2	3	1
4	Malkangiri	6				6	
5	Nabarangpur	7	1	1	3	2	
6	Nuapada	6				4	2
7	Rayagada	6			3	3	
8	Sonepur	6				4	2
	KBK	49	1	2	9	30	7
	KBK (%)	100	2	4	18	62	14

Source: DJRC Primary Data

There are some centres where less than five beneficiaries are availing the benefits of the programme. As there is no fuel provision in the programme, it is a highly uneconomical to cook food for such a low number of beneficiaries. The amount of fuel utilized for a smaller number is about the same as that would be required for a larger number. According to the district officials the number of beneficiaries cannot be increased as per the guidelines of the programme. Hence, it would be a resource saving measure if in centres with lesser number of beneficiaries; the beneficiaries were provided meals through the MDM scheme operating in the nearest school. Otherwise, cooks are in favour of providing dry ration to the beneficiaries in centers where their number is less. At a later stage, if the provision for number of beneficiaries is increased the programme can operate as usual with more efficient use of fuel.

Storage Facilities

Quality of food grain remains satisfactory when it is stored in a safe and clean location i.e. there is no chance of the grain being stolen or spoiled. In most of the cases food grains are stored in AWCs. Where the AWC building is in poor condition, the foodgrain is usually stored in the worker's house/cook's house.

Table No.2.14: Storage Facilities for Foodgrain

(Figures are in percentage)

Sl.No	District	AWC Workers House	Cook's House	Panchayat Godown	AWC Centre	Supervisor's House
1	Bolangir	50	-	-	17	33
2	Kalahandi	-	-	-	50	50
3	Koraput	-	33	-	67	-
4	Malkangiri	-	-	-	100	-
5	Nabarangpur	-	86	-	14	-
6	Nuapada	-	17	33	17	33
7	Rayagada	-	83	-	17	-
8	Sonepur	17	17	-	50	17
	KBK Total	8	31	4	41	16

Source: DJRC Primary Data

In 41% of the cases, foodgrain is stored in the AWCs whereas in 31% of the cases the grain is stored in the cook's house. In 16% of cases food grain is stored in the supervisor's house.

Manpower (Staff) and Cooking Provision

For this programme, there is no provision of an independent cook. The helper of AWCs is in charge of cooking in all the centres. She also has to collect firewood from the forest. A major constraint of the programme is that a single person has to take the responsibility of many tasks and in return, receives a paltry salary of 500 rupees per month. The same worker has been performing these jobs for 10 to 11 years continuously. In addition, most of the officials and cooks said that the workload has been increasing day-by-day across all centres. "Emergency Feeding Programme" and "Special Nutrition Programme" are two additional programmes implemented through the AWC network. But there is no additional manpower employed for these programmes. All the activities relating to these programmes are done by the helper of the AWCs. Everyday the helper cooks meals in accordance with the number of beneficiaries present at the centre. When the beneficiaries go out of the village without informing the cook, the meal is cooked taking the persons status as being present for last 2 to 3 days. On finding that the person is not present in the village, his share of the meal is not cooked till he returns. This is a rare case found only in one AWC in KBK districts.

Provision for Distant Beneficiary

Some beneficiaries are not able to take their meal at the centre everyday on account of distance from the centre. In these cases dry ration is provided from the nearest Anganwadi Centre on a weekly basis. 14% of the supervisors said that dry ration is provided to the hamlets which are distant from the centre. There is a mutual understanding among the beneficiaries regarding cooking. There is rotation of beneficiaries as regards cooking as well as collection of dry ration from the centre. This process continues for the whole year. According to the AWC supervisors, dry ration is provided only in rare cases. In Pandripani AWC of Malkangiri district it was found that out of thirty beneficiaries, only nine beneficiaries get the benefit of cooked meal. Rest of the beneficiaries are provided dry ration as they live in hamlets distant from the centre.

In Ramnaguda Block of Rayagada district, it was found that distant beneficiaries are merged with the school mid-day meal scheme. The provision for these beneficiaries is distributed along with MDM supply from the Block office. This scenario was observed only in Rayagada district. According to the officials, it is not possible to provide cooked meal to all the hamlets within a village under EFP. So these are merged with MDM scheme where possible.

BEST PRACTICES

Best Practice I

Pujariguda is a G.P. village. Pujariguda AWC is about 8 Km away from the Block office (Tentulikhunti) of Nawarangpur district. The total number of beneficiaries of EFP at this centre is ten. In the selection process a meeting was arranged by the AWC worker in the presence of the Ward member and the head of the village (Sarpanch). Ten beneficiaries were selected in accordance with the criteria laid down by the programme. Out of the ten beneficiaries, two were selected directly by the BDO, both were widows. The beneficiaries opined that they faced no problems in the selection procedure.

At the AWC, each beneficiary gets 250 gm of rice and 40 gm of dal. In interacting with the beneficiaries it was found that they were satisfied with the quantity of rice

and dalma and the amount of vegetables in the dalma. Dalma is usually very tasty and they enjoy their meal. The beneficiaries initially questioned the survey team members regarding the purpose of their visit. After being assured of the positive intentions of the team they engaged in a fruitful conversation with the team. They suggested that if egg becomes a component of the Emergency Feeding Programme as in the case of MDM it would improve their nutritional status and contribute vitally towards improvement in their health. Also, if there were a provision of two meals in place of one the beneficiaries would not have to engage themselves in daily labour even at their old age and infirm condition. Currently they have to work in order to arrange for their meal at night.

The worker and the cook said that the beneficiaries are taking a hot cooked meal on 360 days in a year. As there is no provision for fuel in Emergency Feeding Programme, the cook strongly appealed for allocation of funds for fuel. However, the cook complained that the salary she received is not sufficient for her.

Best Practice II

The Alligaon AWC is situated in Pakjhola G.P, near about 7 Km from the Block office (Semiliguda) of Koraput district. The number of beneficiaries of this centre is twenty. In the selection procedure a meeting was arranged by the AWC worker, which was attended by the ward member. Persons who fulfilled the eligibility criterion of the programme were selected. There are 10 would-be-beneficiaries included in an additional list who would be included in the scheme as and when vacancy occurs.

In this centre each beneficiary gets 250 gm of rice and 40 gm of dal and sufficient amount of vegetables in the dalma. The beneficiaries were very co-operative at the time of interaction. The beneficiaries said that they were satisfied with the implementation of the programme and were getting a hot, cooked meal every day. They said that the quality and quantity of the rice and dalma is satisfactory. All the beneficiaries complained about single meal provision. They complained that the Government should realize that the scheme does not satisfy the nutritional requirement for a day as it is impossible to survive on a single meal per day. They conveyed to the team that optimally they should be given two meals per day. They

also suggested a non-vegetarian (egg) item should be added once in a week. They expressed their desire for a curry along with rice and dal and complained of the same menu being served everyday.

The villagers are satisfied with the cooked meal provided to the beneficiaries. A non-beneficiary (included in the additional list) above 65 years of age complained said that he had been waiting for the last two to three years to be included in the programme. The AWC worker said due to fixed number of beneficiaries he is not included in the programme. If somebody opts out or passes away from the main list, the above person would be immediately included in the programme.

CONSTRAINTS

Problems Faced by the Implementing Agency

This programme is implemented by Women and Child Development Department through the Anganwadi network. After discussion with the district level officials and village level workers, the following problems have been identified in the KBK districts while implementing the programme.

- **360 Days Implementation:** Government decided to provide one cooked meal a day to the selected beneficiaries throughout the year. But officially funds are provided only for 360 days and not for 365 days. In some cases, the beneficiaries questioned the officials regarding this practice. It also creates problems in maintaining records. Consequently officials are in favour of provision of feeding for 365 days.
- **Low Quality of Dal:** In this programme all the food grains are purchased from the district. Rice is purchased from the nearest FCI depot, whereas dal is supplied on tender basis. In almost all the cases, there are complaints about the low quality of dal. The officials also admit that quality of dal is poor.
- **Inadequate Fund Allocation for Vegetables:** Due to insufficient fund (20 paise per beneficiaries/day) allocation for vegetables, quantity of vegetables mixed in the dalma is inadequate. Further, there is lack of variety and the vegetables are confined to tomato and potato.
- **Cooking Utensils:** Initially, cooking utensils supplied to the centres were found to be sufficient. However, after the drop in quality of dal pressure cookers have become a necessity in order to boil the dal quickly, which otherwise takes a long time to prepare.
- **No Spot Feeding:** Though there is a provision for 'spot feeding', it is difficult to implement because all the beneficiaries do not come to the centre at the same time.
- **No Fuel Provision:** In this programme, there is no provision for fuel. In some cases, the cook collects firewood from the forest, while in other cases firewood is purchased from the market at a cost of Rs 50 per bundle. The expenditure on fuel is met out of allocation for dalma.

- **Provision for Hamlets:** There are hamlets which are neither included under school MDM, nor under the provision for dry ration. The old persons of the hamlets questioned the officials regarding the non-inclusion of the particular hamlet under one of the programmes.
- **Payment to Cook:** Under the programme there is no provision for an independent cook. The cook is an employee of the AWC. Before the introduction of the scheme, she was getting Rs 500 per month. As no cook was appointed after the implementation of the programme the responsibility of cooking and collecting firewood was passed on to the helper of the AWC. Though the responsibilities of the helper have increased there has been no increase in her payment.

Problems Faced by the Beneficiaries

Some of the problems faced by the beneficiaries are as follows:

- **Low Quality of Dal:** The quality of dalma becomes poor due to low quality of dal. Sometimes dal is not supplied regularly due to delay in finalisation of tender. Consequently, beneficiaries are provided only rice.
- **Provision of Single Meal:** Beneficiaries complain that a single meal is not sufficient to meet their daily requirements. They want provision of a meal at night along with the meal served at noon.
- **Low Quantity of Rice:** The quantity of rice is not sufficient for the beneficiaries. In September 2006, an additional 50 gram of rice was provisioned to all the beneficiaries. Even those who are getting the additional amount complain for further increase in the quantity of rice.
- **Irregular Flow of Dal:** The dal is supplied through tender procedure. The Government's selection procedure for tender fixation takes time which creates problem for the beneficiaries. Due to delay in tender finalisation, dal is not supplied regularly.
- **Less quantity of Vegetable:** The amount of vegetables is not sufficient in the dalma as per the beneficiaries. The amount supplied for vegetables is insufficient to provide variety of vegetables. Therefore, the vegetables which

can be provided under the existing cost norms only are served, leading to the same menu day after day.

- **Distance Beneficiary:** Dry ration is provided to the distant beneficiaries once in a week depending on the number of beneficiaries available. In this case the meals are cooked on a rotation basis and shared among the beneficiaries.
- **A single Beneficiary from a Household:** From a household only one beneficiary is selected in the programme. In some families two people (husband and wife) are eligible to get the benefit. In 2-3 cases, it was found that where only one out of two is selected, the meal is divided between the two at their home.
- **A single Menu:** There is no variation in the menu, only rice and dalma being provided to the beneficiaries. So the beneficiaries feel unhappy and suggest changing the menu, such as, the provision of eggs in the meal. Some of the beneficiaries are in favour of supplying non-vegetarian items such as fruits.

RECOMMENDATIONS

- **Increase in Quality of Dal:** Poor quality dal is not only difficult to boil, but also is bereft of nutritional content. Therefore, good quality dal, such as, Arhar or Buta should be provided to the AWC centres.
- **Regular Supply of Dal:** Dal should be provided regularly. There is need to increase scrutiny in the selection of dal supplier.
- **Provision of Double Meal:** A single meal is not sufficient for a whole day. There should be provision of a meal at night along with the meal served during the day.
- **Introduction of Eggs, Fruits and Milk Items:** In the MDM programme, egg is provided. Similarly eggs should be provided in the EFP to increase the nutritional content of the meal. Since it would be inconvenient and expensive to provide non-vegetarian items, the meal can be supplemented through fruits, milk and bread.
- **Payment to Cook:** The payment to cook should be increased in view of the additional responsibilities she has to undertake.

- **Fuel Cost:** There should be a provision for fuel cost since at times the cost of fuel is arranged out of the amount allocated for vegetables leading to a decline in the quality of dalma.
- **Enhancement in the Cost Norms:** The quantity of rice has been raised by 50 grams in September 2006. But there is no change in dal or other cost norms. Quantity of dal, vegetable, and oil should be increased.
- **Utensils:** Pressure cookers should be provided to all AWCs in view of the time required to boil dal.
- **Provision for Store and Kitchen Room:** As stated above, there is problem of kitchen in the AWC centres. In some cases meal is being cooked in the cooks' house or cooked in AWC verandah. So kitchen room provision should be compulsory in the cooked meal programme.
- **Increase in the Number of Beneficiaries:** There are many eligible persons who can be included in the programme. Due to fixity in the number of beneficiaries, they are deprived of the benefits of the programme. There should be an increase in the number of beneficiaries. Further, widows and helpless should be included officially in the programme.
- **Proper Training to Cook:** Food preparation from the point of view of hygiene is very important in each feeding programme. For better functioning of the programme, training should be given to all cooks, and this will help increasing the quality of the meal.

CONCLUSION

In the KBK districts, the feeding programme is going on smoothly in all AWCs. After the increase in the quantity of rice by 50 grams, the beneficiaries are satisfied. Some eligible persons are deprived of getting the benefit. So the number of beneficiaries to be provided meals through the programme should be increased to include all those eligible. Other wise, the would-be beneficiaries have to wait for a long time till the death of a beneficiary enrolled in the list for the particular AWC.

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Kitchen garden in a Residential Tribal School: at Saunliguda village, Mathili Block, Malkangiri district. It is one of the best kitchen gardens observed in all over KBK districts.



Prepared MDM at Sindhrial Primary School of Malkangiri district



Children enjoying Mid Day Meal in Sindhrial Primary School of Malkangiri district



After collecting firewood, a 70-year old woman heading to enjoy her meal served under EFP.