

# An overview of mid-day meal scheme in Karnataka

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The present study was made to evaluate the impact of mid-day meal scheme (MDMS) in Karnataka State. MDM Scheme was implemented in educationally and economically backward North Eastern districts of the state during 2002-03. Later the scheme was extended to other 20 districts of the state under National Programme for Nutritional Support to Primary Education (NP-NSPE) with the title Akshara Dasoha during 2003-04 in a phased manner. As per the directions of the Hon'ble Supreme Court the scheme of providing hot cooked meal is implemented for all the children of classes I to V of both Government and Government aided primary schools. The scheme of providing free food grains @ 3 kg / child per month to children of class I to V of Government aided schools on the basis of 80 per cent of attendance in a month under NP-NSPE is continued during 2002-03 and 2003-04. The programme was extended to VI and VII standards in Government/ Government Aided Schools in the State during 2004 and the programme of providing hot cooked meal transferred to Zilla Panchayat w.e.f. 01.04.2005. The programme is extended to students of VIII standard studying in upgraded primary schools and students of VIII to X standard of Govt and Aided High Schools. Many scholars pointed out in their studies that the scheme has a good impact on child nutrition, school attendance and social equity.

**Key Words :** Mid-day meal, Education, Nutritional status, Enrolment, Retention

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## INTRODUCTION

Karnataka is a state in South West India. It was constituted on 1 November 1956, with the passage of the States Reorganization Act. Originally known as the State of Mysore, it was renamed as Karnataka in the year 1973. The capital of Karnataka remains as Bengaluru based on the historical rule of the King Kempegowda and is the largest city of the state. The state has many evidences connected to the old stone age ex: Hand axe of lingasagur. Recently Hampi Utsav was celebrated with great

splendour bring out the old culture of the region in splendid way.

## Demography of Karnataka:

Karnataka is bordered by the Arabian Sea and the Laccadive Sea to the west, Goa to the North West, Maharashtra to the north, Andhra Pradesh to the east, Tamil Nadu to the south east, and Kerala to the south west. The state covers an area of 191,976 square kilometres (74,122 sqm), or 5.83 per cent of the total geographical area of India. It is the eighth largest Indian state by area. With 65,061,069 inhabitants at the 2015 census, Karnataka is the ninth largest state by population, comprising 30 districts. Population of Karnataka consists of Hindu - 83 per cent, Muslim - 11 per cent, Christian - 4 per cent, Jains - 0.78 per cent and Buddhist - 0.73 per cent.

Mysore Palace is one of the most magnificent

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buildings. The interior of the Palace is equally worth a visit, for its spacious halls, paintings and architectural beauty. The Palace is an excellent combination of Indo-Saracen architecture.

### Geography of Karnataka:

Karnataka land is lying on Deccan plateau with Western Ghats connected to Arabian Sea. Mangalore port harbour lies in Karnataka. Many igneous rock formations and hilly areas are the remarkable topography of the land. Rivers-Krishna, Cauvery, Thunga Bhadra, Nethravathi and Hemavathy are sources of Agricultural cultivation. Moderate and less monsoon rains are the only hopes for agricultural cultivation. Natural vegetation and forests are found only in Ghats and river bed regions, based on the even surfaces of land and availability of water. Food crops - rice, *Ragi*, maize, jowar and millets and other commercial crops like coffee, areca, chillies, coconut, tobacco and vegetables are grown. Except deficit of natural rains and water resources, the land is fertile for agricultural cultivation. Annually some parts of the state come under drought.

### Culture:

Karnataka has its own unique culture heritage devotions to the existing religions. Antique cultural dance of 'Yakshagana and open theatre shows of social, political, historical and epic related dramas are still enacted in villages. Mysore Peta, silk sarees and dresses are still famous and are considered the rich and salient garments of Karnataka. 'Karnataka music' is famous for festival concerts. The Forts, monuments and palatial remnants of historical rulers - Chalukyas, Kadambas, Rashtrakutas and Bahamani Sultans of Bidar, Gulbarga, Bijapura, Tippu Sultan's historical remains in Srirangapattana along with Maharajas of Mysore are found in the districts of Karnataka. The famous archaeological remains of Vijayanagara empire at Hampi are the famous historical remains.

### Language:

The Kannada language serves as the official language of the state of Karnataka, as the native language of approximately 65 per cent of its population and as one of the classical languages of India. Kannada played a crucial role in the creation of Karnataka: linguistic demographics played a major role in defining the new

state in 1956. Tulu, Kodava and Konkani are other minor native languages that share a long history in the state. Urdu is spoken widely by the Muslim population.

### History of MDMS in India:

With the objective to enhance enrolment, attendance and retention of children in schools by mitigating their class room hunger and improving nutritional status mid-day meal scheme (MDMS) was started in India by Madras Corporation in 1925 as a school lunch programme. After 50 years, the programme got national attention and in 1974, the National Policy on Children declared that country's children were its supreme human resource. This policy stressed the state to ensure full physical and mental development of children. As a result states *viz.*, Gujarat, Kerala and Tamil Nadu and the UT of Pondicherry had universalized a cooked mid-day meal programme with their own resources for children studying at the primary stage. mid-day meal was also being provided to children in tribal areas in some states like Madhya Pradesh and Odisha. Gradually by 1990-91 the number of states increased to twelve in implementing the mid-day meal programme on a large scale basis with their own resources. The states, namely Karnataka, Odisha and West Bengal implemented the programme with state resources along with international assistance. In later stage, the National Programme of Nutritional Support to Primary Education commonly known as the mid-day meal scheme (MDMS) was launched in India in August 1995. The MDMS covered all students in primary schools run or funded by the Government throughout the country. A historical order by the supreme court of India in 28 November 2001 changed the picture of MDMS and all the state governments introduced cooked mid-day meals programme in all government and government assisted primary schools. It was one of the first achievements of the right to food campaign. Mid-day meal scheme has become an effective means to check high dropout rates of children from economically weaker sections of the society. Besides, it addresses the nutritional needs of the children. Mid-day meal scheme is considered as a means to increase enrolment, school attendance and retention, has brought a positive impact on educational advancement.

Supreme Court of India ordered the Govt. of India that the NP-NSPE should provide 'cooked meals' with a minimum nutritive content of 300 calories and 8-12 g of

proteins for each day of school for a minimum of 200 days. In 2006, the GOI revised the nutritional norm to 450 calories and 12 g of proteins. In 2007, the GOI extended the scheme to cover children of upper primary classes (*i.e.* class VI to VIII) and changed its name to 'National Programme of mid- day meal scheme (NP-MDMS). The nutritional norm for upper primary stage has now been fixed at 700 calories and 20 g of protein. Since 2008, the NP-MDMS has been implemented across the country. Currently, India's NP-MDMS is the largest nutritional programme for school children in the world, covering 104.4 million children in 1.2 million schools across the country with an annual budget allocation of Rs. 119,370 million.

### Brief history of MDMS in Karnataka:

The mid- day meal scheme is a flagship programme of Union Govt of India. According to the directions of honourable Supreme Court of India, MDMS was started in schools. This programme for the children of class I to V started in North Eastern Districts of Karnataka with effect from 01.06.2002. The seven educationally backward districts in which the programme was introduced are Bellary, Koppal, Raichur, Bidar, Bagalkote, Gulbarga and Bijapur. The mid- day meal scheme was extended to other districts of the state from July 2003. This programme was again extended to the children of class I-V studying in Government Aided schools w.e.f. 1.9.2004. Now the mid- day meal scheme is extended to all the children of Govt and Govt Aided schools studying in classes VI-VII w.e.f. 1.10.2004. Government of Karnataka is providing hot cooked meals to the children

of VIII to X standards of Government and Government Aided schools out of its own resources.

The main objectives of the programme are:

- Ensure enrolment of all children of school going age.
- Improve the enrolment and attendance.
- Improve retention rate.
- Improve child health by increasing nutrition level.
- Improve learning levels of children.
- Ensure social equity.

### Kshera Bhagya Yojane :

Government of Karnataka introduced Ksheera Bhagya Yojane on 01-08-2013, 150 ml of hot milk is given to all children from 1 to 10<sup>th</sup> Std in Govt and Aided Schools thrice a week (alternative days). Rs. 5.18 is spent per child per day. Karnataka milk federation (KMF) is supplying the Skimmed milk powder to all schools. 18 g of Skimmed milk powder is converted into 150ml milk given to children. It is benefitting 64 lakhs children under the state fund of 300.00 crores per year.

### Management structure:

As per the norms and directions of the Government of India the hierarchical administration of the state has to take care of the primary education system through operation of MDMS starting from the state administration to the school and Gram Panchayat level for smooth implementation. Table 1 shows the scheme of operation at different administration levels in the state.

Both MDMS and KBY are run by the co-ordination

**Table 1 : Institutional Mechanism for MDMS**

Level of responsibility	Agencies responsible	Responsibility
National level	National Level Steering Cum Monitoring Committee (NSMC), and Programme Approval Board (PAB)	Overall control and monitoring
State level	State Level Steering cum Monitoring Committee and Nodal Agency	Nodal officer for implementation, evaluation and monitoring at the State level
District level	District Collector/District Nodal Agency	Nodal officer for implementation at the ZP level, co-ordination of implementation of the scheme with Education Department, Food and Civil Supplies Department
Taluk level	Executive Officer, Taluk Panchayat	Supply of food articles to schools, supervision and monitoring of supply of food and payment of wages to cooks, etc.
Village and school level	Gram Panchayat/Municipality Village Education Committee,  School Management and Development Committee(SMDC), Parent Teacher Association, Mother Teacher Association	Supervision of kitchen, quality of food and distribution, etc. Ensuring non-wastage of teaching time for preparation of food and overall monitoring at school level

Source: NP-NSPE, 2006

of following departments.

- Govt. of India and Govt. of Karnataka
- Food Corporation of India
- Rural Development and Panchayath Raj
- Food and Civil Supplies and Consumer Affairs
- Revenue Department
- Health and Family Welfare
- Karnataka State Food and Civil Supplies

Corporation

**Details about the weekly menu:**

Government has introduced new weekly menu from January 1<sup>st</sup> 2014 after thorough deliberation with nutritionists and stake holders to form a balanced nutritional diet (Table 2), which includes locally available seasoned vegetables and green leaves. To provide additional calories to the normal diet, cereals also added in suggestive menu.

**Best practices followed in the State:**

- Food is prepared by using LPG. This has helped to keep kitchen and school area clean and also tidy.
- Women are appointed as cooks.
- Women belonging to SC/ST and OBC have been appointed as cooks. Preference is given to widows and destitute.
- All children are served food by making them to sit in rows or stand in queues irrespective of caste and creed. This helps in co-ordination, equality and moving towards casteless society and social integration.
- Children are made to wash hands and plates before and after eating food.
- Mother’s committees have been constituted in each school, mothers participate in cooking and serving.
- Cooks have been trained in preparation of hygienic and health food to maintain cleanliness.
- Cooking cost is released to joint account of the presidents of school development and Monitoring committee and head cooks well in advance for purchase

of vegetables and spices.

- Grievance cell is opened since 2011 March and received complaints are solved immediately at different levels then and there itself.

- Kitchen gardens are developed in schools where land, water and compound wall facility is available. Each school is given one time grant of Rs. 3500/- per-school to grow vegetables in kitchen garden in 20,000 schools. Total expenditure for this purpose is Rs. 700 lakhs is borne by the State Government.

- In all schools, the details of mid- day meal scheme is displayed preferably on kitchen walls for information of general public. Karnataka Govt. has released Rs. 1000/- school in 46250 schools.

The number of schools and the children covered under MDMS in Karnataka state as reported in annual reports developed by Ministry of Human Resource Development is depicted in Table 3 and 4.

**Impact of mid- day meal scheme and enrolment, retention and attendance of school children :**

The effect of mid-day meal scheme in the Kolar and Mysore districts of Karnataka state over 2 years (1992-1993) was studied by Laxmaiah *et al.* (1999). As compared to controls, in their study group there was significantly better school enrolment and attendance, and a reduced dropout rate. However, there was only a marginal improvement in school performance and nutritional status. In 1994, the state of Gujarat introduced an anthelmintic drug plus micronutrients “health package” along with the mid-day meal. This “health package” consisted of a single dose of albendazole (400 mg) and vitamin A tablets (200,000 IU); and iron tablets (20 to 60 mg elemental iron) delivered twice a week at the beginning of each school term.

Naik (2005) report on Akshara Dasoha Scheme of Karnataka found a sharp rise in enrolment particularly in the rural areas. The programme has made positive impact on teacher absenteeism. Mid- day meal is served

**Table 2 : Daily menu served under mid-day meal scheme**

Days	Menu	Vegetables to be used
Monday	Rice sambar	Palak and drumstick leaves and other leaves, potato, brinjal, onion, tomato, mixed vegetables etc.
Tuesday	Rice sambar	White pumpkin, carrot, beans, cabbage, beetroot, tomato, etc.
Wednesday	Rice sambar	Drumstick, potato, onion, tomato etc.
Thursday	Rice sambar	Pumpkin, bottle guard, curry cucumber, ladies finger, radish, etc.
Friday	Rice sambar	White pumpkin, carrot, beans, cabbage, beetroot, tomato, etc.
Saturday	Bisibelebhath/ Upma	Palak and drumstick leaves and other leaves, potato, brinjal, onion, tomato, vegetables etc.

regularly and schools supplied de-worming tablets, vitamins and iron tablets. No discrimination was found with respect to serving and eating of food on the basis of caste etc. 72 per cent of the parents felt that their children had gained weight because of mid- day meal programme and 59 per cent of the parents felt that their children suffered less from common ailments like cold and cough. More than 90 per cent of parents were satisfied with the scheme

Avinash and Manjunath (2013) studied impact of mid-day meal in 20 upper primary schools in rural Bhadravathi taluka of Karnataka. He concluded that the scheme is successful in achieving its objectives like feeding of hunger children, increasing attendance ratio, to make teaching and learning process effective, to improve attention of learning etc. The poor children are feed satisfactorily and improved their health.

CARE-INDIA (1977) examined the impact of school feeding on enrolment and attendance in Karnataka and

found that the mean percentage of attendance increased. Absenteeism not only decreased but the mid- day meal scheme also produced stability in attendance and increased the enrolment rate by 4 per cent.

Ravi (2006) found that the records at the Department of Public Instruction indicated that school attendance has improved since the introduction of the mid- day meal scheme by 2 to 10 per cent across Karnataka.

On the basis of available research studies depicting impact of mid- day meal scheme on enrolment, retention and attendance across the country, it can be concluded that a number of research studies reported overall improvement in enrolment of students as a result of mid-day meal scheme and the increase was more in case of the of girls (Baru, 2008 and Jain and Shah, 2005), SC, ST (Jain and Shah, 2005) and rural children (Naik, 2005).

A number of research studies (CARE INDIA, 1977, Misra and Behera, 2004; Blue, 2005 and Kaur, 2010) reported positive impact of mid- day meal scheme on

**Table 3 : Schools covered under mid-day meal scheme in Karnataka**

Year	Primary			High school			Grand total
	Govt.	Aided	Total	Govt.	Aided	Total	
2003-04	42805	2830	45635	0	0	0	45635
2004-05	43414	2830	46244	0	0	0	46244
2005-06	44354	2830	47184	0	0	0	47184
2006-07	44354	2499	46853	0	0	0	46853
2007-08	44849	2408	47257	4138	2820	6958	54215
2008-09	44849	2408	47257	4138	2820	6958	54215
2009-10	45362	2290	47652	4177	2964	7141	54793
2010-11	45530	2511	48041	4521	3513	8034	56075
2011-12	45528	2511	48039	4521	3513	8034	56073
2012-13	44309	2789	47098	4464	3551	8015	55113

Source: [www.schooleducation.kar.nic.in](http://www.schooleducation.kar.nic.in)

**Table 4 : Children covered under mid-day meals scheme in Karnataka**

Year	Government schools				Aided schools				Grand total
	1 to 5	6 to 7	8 to 10	Total	1 to 5	6 to 7	8 to 10	Total	
2003-04	4440375	-	-	4440375	-	-	-	-	4440375
2004-05	3978385	1438153	-	5416538	386660	200782	-	587442	6003980
2005-06	3600143	1323236	-	4923379	466646	214486	-	681132	587442
2006-07	3424904	1310662	-	4735566	427604	194965	-	622569	5604511
2007-08	3375197 1 to5	1313663 6 to 8	1014582 9 to 10	5703442	403869 1 to5	193413 6 to 8	754737 9 to 10	1352019	7055461
2008-09	3316252	1633855	615140	5565247	387789	434428	507468	1329685	6894932
2009-10	3074007	1569947	611997	5255951	491968	477289	498871	1468128	6724079
2010-11	2935448	1598567	649532	5183547	454386	496266	561905	1512557	6696104
2011-12	2904870	1524343	622293	5051506	449652	473223	538340	1461215	6512721
2012-13	2769876	1471375	602293	4843544	453682	438701	518340	1410723	6254267

Source: [www.schooleducation.kar.nic.in](http://www.schooleducation.kar.nic.in)

attendance. The trend of studies (Misra and Behera, 2004, Kaur, 2010 and Parida, 2010) indicated the positive impact of mid- day meal scheme in retaining the children in schools.

### **Mid-day meal scheme and improvement in nutritional status of school children :**

One of the major objectives of mid- day meal scheme is to improve the nutritional status of Primary school children by providing a hot cooked nutritious meal in lunch time. Ashwini (2009) assessed nutritional profile of beneficiaries of Aksharadasoha programme and implementation status in Hubli city of Karnataka. Anthropometric measurements revealed that height and weight of the children were significantly lower than the standards. According to WHO (1983) classification 22.88 per cent children were normal, 45.78 per cent were normally fed but having a past history of malnutrition. Overall attendance of beneficiaries was 87.79 per cent. About 37.78 per cent did not face health problem after consumption of school lunch and 96.33 per cent reported that the menu had good satiety value.

Christie Minj *et al.* (2014) compared the nutritional status of children aged 6-12 years in 4 Primary schools two years before and after the introduction of the MDM Programme. Children enrolled in 4 government lower Primary schools in Sarjapura PHC area in Karnataka were studied. The study revealed that following the introduction of MDM there was a reduction in the proportion of children with stunting as well as a reduction in the proportion of children with under nutrition. Secondly, under nutrition among girls was high both before and after the introduction of MDMS. And thirdly, the improvement in the nutritional status after the introduction of MDMS was more among girls when compared to boys in a majority of the age groups.

Afridi (2005) studied the institutional and financial organization of the mid- day meal scheme in Karnataka and Madhya Pradesh. In the context of Karnataka, the report argued that Akshara Dasoha has been more planned and better managed. Iron and folic tablets as well as de-worming tablets have been regularly provided. Good community participation and School Development and Managing Committees are functioning well. Meals are provided regularly and quality of meal is satisfactory.

Naik (2005) in her study on Akshara Dasoha Scheme of Karnataka found sharp rise in enrolment particularly

in the rural areas. The programme has made positive impact absenteeism. Mid- day meal is served regularly and schools supplied de-worming tablets, vitamins and iron tablets. No discrimination was found with respect to serving and eating of food on the basis of caste etc. 72 per cent of the parents felt that their children had gained weight because of MDMS and 59 per cent of the parents felt that their children suffered less from common ailments like cold and cough. More than 90 per cent of parents were satisfied with the scheme. 95.5 per cent of the children felt that the food was tasty and 90 per cent said that drinking water was available. 95 per cent of the children felt that their concentration had improved.

Savitri Byadagi *et al.* (2015) carried out cross sectional study to compare nutritional status amongst children of 14- 16 years age from three different sets of schools in Karnataka. Study was conducted at private high school without MDMS, Govt. high school with ISCKON mid- day meal programme and Govt. high school, with Akshara dasoha. The results of the study showed that majority of the subjects from all the three schools belonged to below the defined anthropometric standards. However, comparatively school without MDMS subjects showed better nutritional status compared to schools with MDMS. Provision of MDM would have contributed to the improved nutritional status of under privileged population in the study group substantially. Shalini *et al.* (2014) conducted a cross sectional study to assess the impact of mid- day meal scheme by assessing the nutritional status of school students aged 5 to 15 years receiving mid- day meals in rural schools and compared them with those in urban schools in Bengaluru, Karnataka. In all the age groups and among both the gender groups, the observed mean weight and height were below expected standards. The study findings showed that 13.8 per cent and 13.1 per cent of the students were under weight and stunted, respectively. A higher proportion of rural students were below the standard values for both weight and height compared to urban students. The researchers believe that the magnitude of burden of undernourished students as seen in this study would have been much greater in the absence of the midday meal programme.

On the basis of available literature on mid- day meal scheme and improvement in nutritional status of children it can be concluded that nutritional status of urban children was found to be better than that of rural and

slum children (Seetharaman, 1980). Mid- day meal scheme is not without benefit and in most cases impacting positively on nutritional status of primary school children (Rameshwar Srama, 1995, Laxmaiah *et al.*, 1999 and Blue, 2005).

### Conclusion :

The MDMS has certainly resulted into satisfying the objective of ending classroom hunger upto significant extent thereby has had strong impact on the parents of children attending schools. Provision of MDMS contributed to the improved nutritional status of under privileged population in the study group substantially. There is still a large gap to be filled towards better nutritional status by providing nutri rich meals. For effective implementation of MDMS, all the functionaries involved in the scheme, need to be aware about nutrition, health hygiene and safety of foods. Non-governmental organization, local youth and active social workers can also play a significant role in this scheme. Hence, quality of education and time span of teaching should not suffer any cost. Adequate staff does not mean the provision of just one cook. Parents and Public are allowed to visit the kitchen centers at the time of cooking and serving. Also the parents are allowed to check the quality of the food grains. To strengthen monitoring, assessment and evaluation of MDMS, strengthening the SDMCs/Parents by giving full powers is very much essential. Opportunity should be given to the external agencies to evaluate the MDM programme. Also there need to have a regular meetings at the State, district and Block Level steering cum monitoring committees to discuss the issues of effective implementation of MDM programme.

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