

# **EVALUATION OF IMPACT OF MID-DAY MEALS SCHEMES IN KARNATAKA STATE (2016-17)**

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## EXECUTIVE SUMMARY

### **[A] Introduction:**

53.48 lakh children are served hot, fresh, cooked mid-day lunch in 54839 Government, private aided-schools of the State including LPS, HPS and High Schools. This figure constitutes 92 per cent of total enrolments. 64,000 Anganwadi children are also covered – outside the scope of this study. NCLP and Madrasas are also covered. This data is for 2018-19. MDM is served for school children on all 6 days of the week. There is a differentiated unit cost of Rs.4.13 for MDM of children of 1 to 5 standards and Rs.6.18 to children of 1 to 10 standards; MDM has variety of vegetables during the whole week as per departmental specifications. Primary school children (LPS) get 490 calories of nutrition and 8 to 10 gms. of protein while HPS/HS children get 720 calories and 12 to 16 gms. of protein. It is noted in this context that 27 per cent children in State, as of 2016-17 NFHS survey, suffer from severe malnutrition.

Further, every school going child is daily served 150 ml. milk, irrespective of age, (also Anganwadi kids) on 5 days of the week across 34 educational districts of the State. On a trial basis, flavoured milk (SMP) is served in Mysore and Raichur districts.

Health care is integral part of MDM scheme. Iron, Vitamin A and Deworming tablets are given to students as per norms.

RDPR/ZPs/TPs, KSCFC/FCS, KMF/DMUs, KDLWS, NIC, NGOs collaborate with the DoE in implementing the scheme. NGOs (71) serve Milk/MDM to 9.3 lakh children of 5587 schools in 14 districts of the State, 17 per cent of the total load of the DoE. MDM is financed by both the GoI and the GoK on a 60 : 40 ratios, as this is a flagship programme of the GoI. A sum of Rs.1,465 crores is spent on MDM by the State Government during 2018-19.

Eradication of anaemia, arresting malnutrition, promoting health and nutrition, significantly contributing to enrolments, retention, children's concentration in studies, promoting learning attainments, and strongly supplementing food security constitute the foci of the scheme.

## **[B] Objectives of the Evaluation Study:**

Objectives of the study are specified by the KEA/DoE in its ToR. (a) Coverage of the scheme across regions/social groups, (b) delineation of the supply chain and processes for MDM scheme, (c) examination of physical infrastructure facilities and adequacy of manpower for MDM management, (d) study of impact of the scheme on educational objectives, (e) extent of food security, (f) involvement and performance of NGOs in MDM, (g) issues in harmonization of MDM organization with teaching schedules at school, (h) relevance of the scheme to target groups w.s.r.t. food security, (i) community involvement and social equity, (j) stakeholders perceptions of the scheme on health and nutrition, (k) constraints in implementation are the variety of objectives of the study, (l) suggestions for effective implementation and needed remedial measures for observed problems are also expected objectives.

## **[C] Methodology:**

(a) Descriptive Survey, documentary analysis of secondary data from schools and the education department, observation and case studies are the chief methods.

(b) Primary data is collected from schools, head teachers, nodal teachers, parents, students, educational officers and NGOs using questionnaires, interviews, IDIs and FGDs. Case studies of 'good' and 'other' schools are completed. Validation of field investigators data is done through the field supervisors. Validation analysis is done.

(c) 34 districts of the study are ranked on Milk/MDM performance using 76 variables/sub-variables. Analysis of data is done district-wise, division-wise and State-wise, everywhere.

(d) Correlation Analysis of MDM attendance and learning attainments as well as Levene's 't' test analysis of differences across divisions have been done.

(e) Sample is drawn in consultation with KEA and as per ToR. There are 515 schools at a minimum of 15 schools per district, 5,158 students (equal proportion of boys and girls), 2,621 parents, 76 educational officers and 10 NGOs which cover 3.73 lakh children of 2,410 schools (40 per cent of total NGOs).

## **[D] Results and Discussion**

1) **School Facilities:** Schools have sufficient cookware (89%). They have fire extinguishers (86%) – this is a mandate of the Supreme Court of India. There is shortage in eating plates and drinking glasses in nearly 25 per cent schools

2) **Management Concerns:** 86% schools display menu while 76% do it correctly with day/date/menu details. Cooks/Ayachs clean kitchen (not students) everywhere; 89% do it daily. There is shortage of Ayachs everywhere. There are no Ayachs in 24% schools. Students clean eating places. There is sufficient water for drinking, cooking, cleaning work (90% schools). 150 schools (over 30%) maintain a kitchen garden. But only 30 of them (20%) received the Departmental, one-time grant of Rs.3,500/-. 40% schools have received NGO contributions – eating plates, drinking glasses, utensils. One time grant of Rs.5,000/- had been given by DoE at the beginning of MDM services by schools for purchase of kitchenware. Cookware needs replenishment in schools established before 2000 AD.

3) **Documentation:** 9 registers for MDM are mandated by the DoE. Compliance is as follows: MDM attendance (92%); Stock (88%); Taste (94%); SoP (76%); Tablet distribution (86%); HT/Nodal teachers' supervision (69%); Video of MDM conduct (18%); 5 point vigilance (56%) and SDMC meetings (57%). None of the registers is maintained in Raichur and Bagalkote districts; only one register is maintained in Bellary. Districts are classified on maintenance of registers – OK (7 to 8 registers), Satisfactory (4 to 6) and (3 or <3) unsatisfactory. This will facilitate M & S by DoE.

4) **Other Concerns:** (a) 87% schools receive contingency amount for processing of food through DBT. (b) Health Cards are issued (93% schools); entries are there (79% schools) of last year; (c) folic acid (57% schools); Vitamin A (57%); de-worming tablets (75%) are issued as per norms. 50 per cent children consume tablets. (d) A highly insignificant proportion of schools face problems of water (11% schools); security (theft – 5.35%), threat of theft (33% schools). (e) Hygiene management is a problem as there are no ayachs in 30% schools. Girls of higher classes clean eating places – a case of Sex-typing. [in 24% schools as per HT; in 30% schools as per students' reports].

5) **Compliance to SoP Guidelines:** (a) SoP guidelines are for nomination of nodal teachers on rotation basis; (b) hygiene management; (c) FEFO compliance; (d) documentation; (e) cooking and serving processes. There are 62 variables and sub-variables, guidelines of SoP.

Sample schools across divisions have obtained scores in the range of 74 to 82 per cent on compliance to SoP.

**6) Monitoring and Supervision (M & S) of MDM:** Head Teachers report to NIC on day's MDM attendance every day (88%). Community involvement for supervision of MDM, visit of MC members is moderate (67% schools). There is short supply of MDM materials – rice (18% schools), pulses (19%), oil (19%), iodised salt (36%), milk powder (20%) plus tablets (21 to 26%). However, quality of foodgrains is good/satisfactory (98% schools). Supplies are on time. Co-ordination across block/district educational officers as well as TP/ZP offices and stakeholders – KMF/KSCFC/DHO is quite good, with a few exceptions.

**7) M & S of NGOs:** Food served by NGOs is from a Central Kitchen. It will not be fresh by lunch time, even though it may get re-heated. NGOs depend on average attendance in schools of previous month to gauge needed supply of MDM food unlike DoE managed schools which use day's morning attendance. NGOs use MC members for food services. Students are not engaged for any work. They rely on their own auditors for MDM audit.

**8) M & S by Educational Officers:** CRPs are the 'food soldiers' of MDM scheme. 6 out of 28 CRPs are not able to cover all schools under their jurisdiction (15 schools) at least once a month for MDM supervision. By and large, educational officers of all ranks miss out on M & S of milk services. Their community connect – attendance at MC/SDMC meetings – is quite good. Demand estimation techniques for all taluq schools are unsystematic and divergent. BEOs do not mandatorily discuss MDM at monthly meetings of CRPs. M & S is good at cluster level, weak at block level.

#### **[E] IMPACT OF THE SCHEME:**

(a) Enrolments at (i) LPS stage declined in spite of Milk/MDM schemes. This is due to population deceleration; admissions under RTE 12 (1) (c) in private, unaided schools; growth of private schools. (ii) Decline is marginal at HPS stage due to decreases in drop-outs, better retention. (iii) Increases in enrolments are observed at high school stage. (b) Retention is quite high at all stages of school education. (c) There are significant and positive correlations between learning attainments [school results] and MDM attendance as well as between MDM attendance and X standard results. Differences across divisions in relation between attendance and attainments are not significant.

(d) Qualitative Feedback – Parents:

(i) Profile of parents reveals that milk/MDM serve the **poor and humble**. (ii) Parents report (as per their children’s feedback to them) that MDM served is adequate (96%), of good quality (96%) and hygienic (89%). (iii) Quantity of milk served is satisfactory (94%), of good quality (82%) and good taste (93%). (iv) Perfumed milk served in 2 districts is appreciated by 84% parents (children). (v) Parents value milk for its nutrition potential (97%), contribution to physical strength (96%), concentration in studies (98%), health status (95%), zeal in life (93%). (vi) 52% parents treat MDM as a substantive meal as they can provide only one meal at home (5.1%) and two meals (47/4%). Going by this sample study, it is informed that 2,14, 500 children (5.1% of total children in government sector schools) do not get breakfast at home. Milk at school is their first food.

(e) Qualitative Feedback – Students

(i) There is convergence of feedback across parents and students with a highly marginal difference in percentages. Students value milk more than MDM for contribution to studies. (ii) Only 15% students sit with their own social groups for consuming MDM.

(f) Summary Insights on Impact of Milk/MDM

Impact of milk is wholesome, very deep and intense. MDM has moderate impact on learning and concentration for lessons. There are other factors in the dynamics of learning. Intended impact on health is not wholesome. There is tremendous impact of milk and MDM on nutrition and food security. Impact is perceptible on enrolments at secondary stage of schooling as well as on retention and transition at LPS/HPS stages. Milk/MDM carry significant impact on learning levels even while according to educational theory/psychology of learning, no single factor like milk/MDM can exclusively determine learning and scholastic achievements.

**[F] CASE STUDY Insights:**

Case studies of 12 ‘good’ schools and 8 ‘other’ schools (other end of the scale as perceived by educational officers, field supervisors), was done. They were reviewed on 121 sub-variables across 17 major variables of MDM performance. ‘Good’ schools are functioning at 95 per cent efficiency while the ‘other’ schools are doing this at 73 per cent efficiency.

## **[G] Conclusions:**

Conclusions are drawn within the WHO (ILO/UNESCO) framework of parameters of evaluation of a development project/scheme. There are 5 parameters: Relevance, Efficiency, Effectiveness, Sustainability and Impact.

MDM has a very high degree of relevance as majority of beneficiaries suffer from food insecurity and were unable to attend school regularly and do well in learning at school. They also suffer from severe to moderate malnutrition. This study has shown that the programme is being managed with a high level of efficiency. Even at the macro/state level coverage of beneficiaries is on a mega scale. It is highly effective in ensuring enrolments and learning attainments and enrolments at secondary stage of schooling. MDM/Milk have improved nutrition levels; sustainability depends on stability of participation of NGOs in future. Impact analysis has already been discussed.

## **[H] Major Recommendations:**

- 1) As of now, there are 60,000 government sector schools spread across 28,000 villages and urban habitations. The need is to move away from small/medium schools to GP/Ward level 1 to 10, comprehensive schools. Number of schools will get reduced to 6000 GP schools plus urban ward level schools. Provide good road and transport connectivity to satellite villages of GPs. Transport children with escorts to school and home. Good quality schools can be maintained due to scale economy. MDM management can be MECHANISED; easy to manage and will be efficient.
- 2) Provide breakfast to all children who attend government sector schools. Begin with drought prone talukas.
- 3) Attach all anganwadis with GP level schools. Discontinue with standalone LPS/HPS. A child will spend his/her life from age 4 years to 18 years in the same school. Student Attainment Tracking System (SATS) will be easy and efficient.
- 4) Provide millet based food – ragi balls, jowar roti, navane bisibelebath on 2 to 3 days in a week – customize it to regional food habits. Give vegetable based (mineral) sweets twice a month. Give Huruli, Hesaru Kalu, Kadale Kalu as variants of pulses.
- 5) Engage in MDM tourism to ‘good’ schools from ‘other’ schools.
- 6) Organise taluqa level MDM Cooking Competitions and give incentives/ prizes to schools.

- 7) Showcase 'Good' (MDM) schools in Department Newsletter – Shikshana Vaarthe.
- 8) All 34 districts are ranked on milk/MDM performance in this study. Areas of low performance are also identified. Tighten M and S on districts at bottom end of performance – low ranking districts.
- 9) Provide adequate staff, specifically Ayahs, to schools as per existing norms. Avoid cleaning work of eating places by students – specifically girl students. It is not fair. Alternatively give cash incentives to cooks/CCH staff to clean eating places. Provide contingency amount for that. Replenish cookware in old schools. Stagger amount of contingency grants/kitchen garden grant cookware purchase/replenishment grant to strength of schools. Do not give uniform grants.
- 10) Strengthen FEFO practices, tablets distribution and consumption practices. Re-sensitise concerned officers of education and health departments on this.
- 11) Encourage NGOs to move away from Central Kitchens to school based kitchens.
- 12) Review job charts of block level educational officers and training for that. Involve ECOs also in M & S of MDM/Milk. Include MDM demand estimation techniques, FEFO/health care M & S, menu chart variety along with their calorie strength, nutrition potential and mineral content.