

## **Towards more benefits from Delhi's midday meal scheme<sup>1</sup>**

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## Towards more benefits from Delhi's midday meal scheme

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### 1. Background to the study

Genesis of current midday meal programme in India

School-feeding programmes in India are most commonly associated with Tamil Nadu where such programmes have been in operation since 1956, and became really important after the Chief Minister of Tamil Nadu, M.G. Ramachandran expanded their coverage rapidly in 1982 and after.<sup>4</sup> The success of Tamil Nadu's noon-meal programme<sup>5</sup> and the comfortable position with regard to foodstocks in the country led to the setting up of a National Programme of Nutritional Support to Primary Education (NPNSPE) in 1995; all children in government, local-body and government-aided primary schools were to be provided with a cooked meal / processed food.<sup>6</sup> The objective was to boost universalisation of primary education by increasing enrolment, retention and attendance, and simultaneously impact the nutritional status of children in the 6-10 age group.

Unfortunately most states did not follow Tamil Nadu's example of providing a cooked midday meal to its primary school children, and chose instead to provide 3 kgs of foodgrain to children enrolled in primary school, with the caveat that they must have 80% attendance in school. In practice, this did not happen and while the dry ration scheme succeeded in pushing up enrolment, it had little impact on improving attendance, and impacting retention levels.

The drive to actually provide cooked midday meals in all government and government-assisted primary schools came about in response to a public interest litigation on the right to food,<sup>7</sup> initiated by the People's Union for Civil Liberties (PUCL, Rajasthan) in 2001.<sup>8</sup> The context was overwhelmingly convincing – 50

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<sup>3</sup> The authors are grateful to MCD officials for their help and cooperation, in particular, Ms Indira Yadav, Ms Premlata Kataria and Mr Narula.

<sup>4</sup> See Rajivan (2003) for a comprehensive account of the history of school feeding programmes in Tamil Nadu.

<sup>5</sup> See Babu and Hallam (1989) cited in Ramachandran (2003) who did an evaluation of the Tamil Nadu midday meal scheme in 1984 and found a highly significant increase in school enrolment due to school nutrition.

<sup>6</sup> Under this programme the HRD Ministry in the central government allocates free foodgrains for primary school children at the rate of 100 gm per child for ten months in the year.

<sup>7</sup> Linked to this have been the earlier campaign to make education a fundamental right and the more recent campaign to guarantee employment to landless labourers.

<sup>8</sup> Note that the demand for midday meals is rights-based, different from the general perception of it being a populist programme. See the website of the Right to Food Campaign ([www.righttofoodindia.org](http://www.righttofoodindia.org)) which draws attention to the functioning of government programmes providing some measure of food security to the poor – ICDS for the under sixes, the Public Distribution system, and midday meals for school children.

million tonnes of foodgrain lying idle in FCI godowns coexisting with widespread hunger in the country particularly in drought-affected Rajasthan and Orissa. The Supreme Court passed an order directing all States to start providing cooked midday meals within six months. The meal was to have a minimum content of 300 calories and 8-12 grams of protein each day of school and provided for a minimum of 200 days in the year.

The States were asked to implement fully eight different schemes on food security (see SC order, 28 Sept. 2001). Clearly, the contribution of the midday meal scheme was seen in the context of other schemes running concurrently. Tamil Nadu provides a good role model -- the noon meal scheme runs in conjunction with the ICDS and the TN integrated nutrition programme.<sup>9</sup>

#### Response to the Supreme Court order

Not all states were responsive to the Supreme Court's order of 2001. Even by May 2002, some states had made little progress, and in May 2003, the Supreme Court asked the laggard states<sup>10</sup> to implement the scheme in at least 25% of the districts which were poor. By March 2004, 14 states (including Delhi) were providing cooked midday meals to all primary school children, 9 states were implementing the scheme partially and 4 states were distributing foodgrain.

The most commonly used excuse was lack of resources. While the central government provided the foodgrain and part of the transportation and conversion costs, states had to bear some of these costs themselves. This lack of resources reflects the priorities of the politicians. According to one expert, "Politicians and bureaucrats tend to be lukewarm about the free mid-day meal programme because there are very few rent-seeking opportunities in such low-budget schemes."<sup>11</sup> Another reason for such lukewarm response from bureaucrats could be the difficulties of implementing such a massive scheme at a level where the meals provided have a minimum quality.<sup>12</sup> The Supreme Court's specification about giving preference to dalit cooks has met with opposition by certain high caste families.<sup>13</sup> The programme has also met with stiff resistance in some states where the politicians have belonged to a regional party or the main

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<sup>9</sup> See Rajivan, 2003.

<sup>10</sup> Bihar, UP and Jharkhand in particular.

<sup>11</sup> Dr. A.S. Seetharamu, professor of education at the Institute of Social & Economic Change, Bangalore, cited in Parikh and Yasmeen (2004). However, reports suggest corruption at lower levels. For example, in February 2003 the inspector of schools in Midnapore district was charged for the criminal offence of selling rice meant for the mid-day meal scheme in the open market -- in collusion with administrators and a private contractor (op. cit. SPECIFY).

<sup>12</sup> See Parikh and Yasmeen (2004).

<sup>13</sup> Reports have come in from both Karnataka and Rajasthan. See also a study done by Indian Institute of Dalit Studies which documents how dalit cooks were opposed in a majority of the villages in Rajasthan and in a substantial proportion of villages in Andhra Pradesh and Tamil Nadu (see Thorat and Lee, 2005).

Opposition party (the Congress), and been unwilling to put out the resources for a programme for which the party at the Centre (the BJP upto 2004) was likely to get all the credit.<sup>14</sup>

#### Understanding the potential benefits of the cooked midday meal scheme at a macro-level

The concept of the government providing a cooked midday meal in its schools is not well established in north India. We attempted to locate studies which studied the potential benefits of such a scheme. We look first at linkages with nutrition, and then at linkages with enrolment and attendance.

The link between children getting cooked midday meals in government primary schools and improvements in their nutritional levels is not well established. In a recent study<sup>15</sup> which compared children in the 6-10 age group across 5 countries, India fared the worst even though the children were from the better off districts of Baroda, Ahmedabad and Rajkot in Gujarat. The children were undernourished, underweight and full of infection in spite of the children getting midday meals. A recent review of school feeding projects also indicates that the evidence that school feeding programmes are able to improve micronutrient status or overall health and nutrition of the child is weak.<sup>16</sup> This is not an argument against the need for the school meal; only that the situation with regard to health and nutrition is drastic and not as easily improved as sometimes indicated.

The same study referred to above indicates that the evidence is strong on two counts: that the midday meal scheme impacts short-term hunger<sup>17</sup> and that it has the ability to improve enrolment and attendance. This was also found by the Centre for Equity Studies field survey in rural Chhatisgarh, Rajasthan and Karnataka in 2003.<sup>18</sup> Enrolment, particularly female enrolment had increased in response to the introduction of the cooked mid-day meal. Parents also reported that attendance had improved, because children were now keener to go to school. Numerous other studies conducted in rural areas in Bihar, West Bengal, Madhya Pradesh and Orissa have also found similar results.<sup>19</sup>

These benefits need to be highlighted particularly in the context that the cooked midday meal scheme in India is not a programme which has been going on for very long nor does it have a powerful lobby in terms of its clientele of children from poor families.

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<sup>14</sup> See Devraj (2004).

<sup>15</sup> See Gopaldas's note on the FRESH initiative. The FRESH initiative was launched at the World Education Forum in Dakar in 2000 to promote an integrated approach to school health, nutrition and education for the school-aged child.

<sup>16</sup> See Bennett (2003).

<sup>17</sup> Although improvements in learning achievements are not so easily attributable to the school feeding programme (op.cit.).

<sup>18</sup> See Dreze and Goyal (2003).

<sup>19</sup> See the website of the Right to Food Campaign ([www.righttofoodindia.org](http://www.righttofoodindia.org)) which has a very useful collection of articles and reports on the midday meal scheme.

## 2.1 Focus of our research – midday meal scheme in Delhi

We felt a study of the midday meal scheme in Delhi would be useful, particularly to see the quality of public provisioning for the disadvantaged right in the capital itself. Several studies look at the functioning of the midday meal scheme in rural areas.<sup>20</sup> The midday meal scheme in Delhi, Bangalore and Hyderabad is different. Here the food is cooked in centralised kitchens while in rural areas and, for example, in Chennai, cooking areas are set up within the school premises. So organisational requirements are quite different, as are issues to do with quantity and quality of the meal served – the supply chain is different. Issues around the impact on learning, on nutrition, on enrolment, and on attendance will also vary. One needs to note also that considerable variations exist among the schemes in the different states which involve “centralized kitchens”, in particular the background of the groups selected to supply the food. We will be discussing Delhi’s suppliers in section 3.

Media reports about the midday meal scheme are generally restricted to a crisis as for example when there is food poisoning and children fall ill.<sup>21</sup> Even in such a situation the issue is politicised to embarrass the party in power rather than from any concern about what can be done to solve the problem. In fact, the extent of under-nutrition among children is little understood.<sup>22</sup> The recently-released FOCUS report strongly brings to our attention that as much as half of all Indian children are under-nourished.<sup>23</sup>

NFHS-2 figures reveal that the situation was quite dismal for Delhi in 1998-9, more than half of all children in the 0-4 year age group in the slum areas were underweight, with underfive mortality rates going to 122 per 1000. Many of these children would have been enrolled in MCD primary schools<sup>24</sup> at the time of our research in mid-2005. The data indicates that the situation is quite drastic with the likelihood that these children would be likely to be below average in terms of health status.

Table 1: Health indicators for Delhi’s children based on NHFS-II data

	Proportion (%) of children aged 0-4 years who are underweight for age	Underfive mortality rate (per 1000)
<b>Slums</b>	<b>52.2</b>	<b>122</b>

<sup>20</sup>Op. cit.; also see [righttofoodindia.org](http://righttofoodindia.org)

<sup>21</sup> In 2003 there were numerous examples of food poisoning in Delhi in particular in Wazirabad (see *The Tribune*, 29 Aug. 2003) and in Azadpur. In 2005 this was reported from a primary school in Karnataka.

<sup>22</sup>The problems associated with chronic malnutrition have received little attention. At the most, severe malnutrition in the context of extreme conditions such as drought in Rajasthan, or starvation deaths in Orissa is considered newsworthy.

<sup>23</sup> See FOCUS (Focus On Children Under Six) report (2006).

<sup>24</sup> These are schools run by the Municipal Corporation of Delhi (MCD) and have the highest proportion of children from slum areas and disadvantaged socioeconomic backgrounds.

Semi-slums	33.9	93
Non-slums	29.8	54
Urban Delhi as a whole	40.3	92

Note: Underweight children are those who are more than 2SD units below the median of the reference weight for well-fed children recommended by WHO (1983) cited in Bhat and Zavier (1999).

Source: Bhat and Zavier (1999).

The focus of our research has been to probe the current functioning of the cooked midday meal scheme in Delhi -- from the kitchens where it is prepared<sup>25</sup> to when it comes in its cooked form to the school and is served to the children. We were keen to understand how all the stakeholders viewed the scheme – the management, the teachers, the children and their parents, and finally the suppliers selected to provide the food. We hoped to use our insights to suggest guidelines for a smoother implementation of the scheme.

Primary education through government schools is provided by the Delhi government and by the MCD and by the NDMC.<sup>26</sup> In our research we concentrate on MCD schools which cover the largest proportion of children enrolled in government primary schools, and which have the highest proportion of children from slum areas and disadvantaged socioeconomic backgrounds.

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<sup>25</sup> Processes involving the FCI's supply of grain to the suppliers would also benefit from further research.

<sup>26</sup> New Delhi Municipal Corporation.

## 2.2 Methodology and sample

It was decided to use a case study approach. We would rely on whatever sources of information we could get – in particular, we scoured government documents and the Right to Food Campaign website for recent research on midday meals, visited the Education Department of the Municipal Corporation of Delhi and the Nutrition Foundation of India, before beginning our primary data collection.

The idea was to triangulate information from all the stakeholders involved – the teachers in selected schools, the children attending the selected school (and their parents), and those supplying food to the selected schools.

The school sample consisted of twelve schools<sup>27</sup> catering to populations living in resettlement colonies / slums in six outlying areas of Delhi. In each of the six areas we looked at both the morning and afternoon shifts in the same school premises to capture variations in the experiences of boys and girls (in MCD schools the girls are generally allotted the morning shift and the boys the afternoon shift). This was also designed to make it possible to get better feedback from the household survey with boys and girls from the household possibly attending the two schools being conducted in the same premises. The household sample consisted of 10 households from each of the 6 sites, selected on the condition that they had a child enrolled in one of the sample schools in that area.

In the school survey, observation was a key research tool as were semi structured interviews with the teachers as well as the supplier's employees who were distributing the food. The investigators spent 2.5 to 3 hours in each school to understand the pre-meal, meal and post-meal dynamics. The team paid particular attention to observing levels of teaching activity – the primary function of a school – and to understanding the functioning of the midday meal scheme within the context of the functioning of the school in which it was being served. During the household survey, we discussed parents' and children's perceptions of the cooked midday meal scheme as well as the infrastructure and the teaching quality in the school in which the child was enrolled. Visits to schools and households were supplemented by visits to some of the kitchens where the food was cooked. Here again we used observation, and semi-structured interviews with suppliers.<sup>28</sup> Details about how they are selected and about the overall implementation of the scheme were obtained in the course of several visits to MCD and interviews with those in charge. We will look at this overall picture in the next section before we look at observations from schools in section 4, and perceptions of parents and children in section 5.

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<sup>27</sup> For details of enrolment in these school, see the location. They were spatially dispersed round Delhi.

<sup>28</sup> We were unable to get enough first-hand information from the suppliers as they were generally fearful.



### **3. Implementing the scheme – as directed by MCD**

Prior to 2001, school-children were being provided dry food such as bread, biscuits, *murmure*, etc. and this continued till mid 2003.<sup>29</sup> Under pressure from the Supreme Court ruling, MCD moved to looking at ways and means of providing cooked meals. Hyderabad and Bangalore were used as models. In January 2003, MCD invited Expressions of Interest from NGOs / caterers and others to supply cooked food to schools. The scheme was officially implemented on 1 July 2003 in only 410 MCD schools. In the next phase, starting from September 2003, more schools were brought under the scheme, and all schools were covered from April 2004.

The financial allocation from the government was, and continued to be at the time of the survey in 2005, Rs 2.40 per child: Rs 2 is given in cash by the local body (for pulses, vegetables, oil, condiments, fuel) and 0.40 paise provided in terms of foodgrain (rice and wheat were to be lifted from FCI godowns in equal proportions) and paid for by the Ministry of HRD, Department of Elementary Education. In 2004-05, the allocations to cover conversion costs and transportation costs incurred by the suppliers was Rs 25 crores and the amount of foodgrain allocated was 90,561.40 quintals of rice and the same quantity of wheat.<sup>30</sup>

MCD decided to “decentralise the entire system in view of the gigantic task and the sensitivity of the matter”.<sup>31</sup> They began with as many as 72 suppliers. DEOs (District Education Officers) in charge of the different zones in Delhi were given the responsibility of selecting NGOs and private caterers to do the actual cooking, handing over the foodgrain to these NGOs from the nearest FCI godowns, and reimbursing their expenses.

Suggestions for the menu for each day’s meal is given to the suppliers by MCD, with the proviso that they are not to repeat the same food in the morning and afternoon shift or on two successive days to ensure that leftover food is not served. The menus are largely cereal and lentil based -- *chawal rajma*, *chawal chhole*, *chawal dal*, *vegetable pulao*, *poori aaloo* and *poori chhole*. Some items which were earlier on the menu and had become unpopular were *daliya* and *parathas*.<sup>32</sup> MCD had removed them from the list.

Both the kitchens (where the food is cooked) and the schools have surprise inspections by an independent organisation such as the Nutrition Foundation of India in which they look at a range of issues related to hygiene and nutrition. The appointment of an independent body like the NFI to conduct regular evaluations is in keeping with Supreme Court guidelines. These evaluations are playing a crucial role. NFI is using

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<sup>29</sup> An evaluation of the earlier scheme reveals that the food was irregular and that the afternoon schools in particular often received it in poor condition – packets torn, bread dry. See Government of NCT of Delhi (n.d.).

<sup>30</sup> See MCD provided “Note regarding midday meal in MCD schools”, prepared in 2005.

<sup>31</sup>Op. cit.

guidelines issued by the Indian Standards Institution<sup>33</sup> to rate the organisations providing the midday meals on an ongoing basis. The suppliers are conscious of the criteria involved in NFI's rating (cleanliness of the cooking area, use of disposable gloves, cooks' hair covered), although they are not necessarily sympathetic (see complaints of suppliers below). More recently, the Sri Ram Industrial Research Institute has also been involved in testing samples of food lifted from kitchens and schools.

From discussions with MCD and the teachers and the suppliers, it appeared that a great many of the earlier problems had been ironed out, and this was confirmed by looking through evaluations of the NFI from 2003 onwards. The NFI indicated in its earlier evaluation that the state of the environment in the areas in which the kitchens were located were far from satisfactory – the area dusty with the roads in poor condition; also garbage strewn all over the place. In particular, suppliers often did not have good waste disposal systems within the kitchens themselves. Not enough attention was being paid to supply nutritious and tasty food.

All this was now vastly improved. Over time, the number of suppliers was whittled down to 56, then to 32 and now it consists of only 11 NGOs, running 13 kitchens. With this arrangement, each supplier has a large responsibility (feeding from 25 thousand to 100 thousand children per day). MCD plans to have a five-year agreement with them, to be renewed annually. The need for ongoing monitoring of the preparation of the food remains.

#### About the suppliers

Suppliers had varied backgrounds. Their names include words such as *Care, Kalyan, Sewa, Manav Vikas, Stree Shakti*, clearly to indicate their identity as welfare organisations. But in general they were not community-based organizations who would look for opportunities to employ people from specific target groups such as women in the community. They were groups who treated this as a business opportunity, and there are indications that there are substantial profits to be made. MCD officials testified to the enormous growth experienced by these organisations as a result of their participation in the midday meal scheme.<sup>34</sup> The system was set up in such a way that these organisations needed to have deep pockets. The initial expenses to set up operations were theirs, and this could run into lakhs of rupees; also recurring costs were reimbursed with a time lag.

With operations on a scale in which they each provide meals for number ranging from 25 thousand to one lakh children per day, the kitchens had to be highly mechanised – big boilers for steaming rice; large

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<sup>32</sup> It was reported that by the time the parathas were served to the children they were too hard to eat.

<sup>33</sup> See Indian Standards Institution (1972, 1995).

<sup>34</sup> In personal conversation with the research team.

vessels for cooking vegetables;<sup>35</sup> commercial gas ranges with 5-6 burners (connected to underground pipelines supplying cooking gas in one instance), chimneys above each gas burner in one kitchen; adequate lighting, exhaust fans.

There were huge machines for kneading dough, for rolling out the dough, for cutting circular shapes to be hand-fried into *pooris*. In spite of the scale, we saw *pooris* being made by hand -- by women -- women were not generally visible doing the cooking of the midday meals elsewhere. As might be expected, the suppliers found it easiest to supply rice.

Regular inspections by MCD and NFI meant that suppliers were used to their premises being visited, both announced and unannounced. Nevertheless suppliers were wary of the research team. It was difficult to locate the kitchens. Sometimes they were remote, sometimes addresses given were not correct. In a few cases, lower-level employees present at the site wouldn't let the researchers in past the front gate.

What was visible in terms of organisation and cleanliness was mostly positive:

- Kitchens were not located in the vicinity of open drains or garbage dumps.
- Waste management within the kitchens also appears to have been paid some attention.
- Disposable gloves were being used in one kitchen (investigators were expected) for one or two operations.
- The kitchens had reasonably clean floors and walls and workspaces; in one kitchen, workers were not allowed to wear slippers.
- Overall there was also no shortage of water reported or observed in any of the kitchens because tanks and motors had been installed.
- The stores of grain, pulses, spices, oil were generally organised and kept neatly.

There were negatives too. Definitely disposable gloves were not used for all the operations even in the kitchens where they were used for some operations. One of the kitchens visited was full of flies.

Dalits, SCs, STs, women and parents of children in MCD schools did not appear to be given preference in the appointment of cooks and helpers, as directed by Supreme Court guidelines. One organisation looked to employ women<sup>36</sup> and one was also running women's self-help groups but there was little evidence of dalit women getting any increased mileage from this.

Suppliers were using mostly male staff for cooking and handling the machines. A very large number of male staff were also employed to distribute the food (between 100-150 staff going out in cycle-rickshaws,

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<sup>35</sup> Researchers didn't see much evidence of fresh vegetables though.

<sup>36</sup> This group was employing widows of MCD employees.

auto-rickshaws, vans, tempos, and trucks). Much of the staff for cooking and distributing was employed through contractors: in this way the supplier was guaranteed that the work would be done without having to negotiate with the workers about wages and working conditions.

Suppliers did indicate that they had been instructed to employ female staff as much as possible, but showed little sympathy with these sentiments. One supplier justified his lack of female staff on the grounds that they were more trouble. Firstly, they fought with each other. Secondly, they were always looking out for who had the lighter work. What our researchers observed in the kitchens visited was that if women were employed at all, it was to clean cereals / lentils in one kitchen, and to clean the vessels in several kitchens.<sup>37</sup>

Suppliers complained that they had to function under many constraints.

- Heavy investment required in machinery<sup>38</sup>: One supplier reported that he had invested between 7 to 10 lakhs just on buying machines. Another supplier claimed to have invested crores.
- Constant visits to their kitchens which they felt constituted harassment. NFI came in for criticism. “Nutritionists are overly concerned with trivialities and know nothing about bulk processing of food,” said one supplier.
- Low financial allocations: Suppliers were getting Rs 2 per child. They felt those who expected them to provide better food were being unrealistic.
- Problems related to quality of foodgrain: FCI foodgrain was of very poor quality, earlier kept for BPL card-holders. The rice becomes sticky when cooked. One supplier said that he pays Rs 2 per kilo just to have it cleaned and ready to use. Others also reported that they exchange it for better grain in the open market at their cost.
- Problems related to timely procurement of foodgrain: FCI foodgrain was also erratic and insufficient. Suppliers had to depend on private contractors to supply them grain and pulses on credit.
- Delayed reimbursement of expenses: The suppliers were supposed to be reimbursed after 2 weeks but the delays could go upto 3 months. They had to be able to access credit from the wholesalers themselves.
- Lack of co-operation from teachers. This was reported by some of the suppliers.

MCD was planning to raise the amount of money allocated per child which would deal with one of the complaints voiced by suppliers. But suppliers indicate there was need for action on several issues -- in particular, the timely provision of foodgrain from the FCI, improvement in the quality of rice provided by the FCI, and more timely reimbursements of the suppliers' expenses.

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<sup>37</sup>The situation is very different from the vast number of women employed in Tamil Nadu's midday meal scheme.

<sup>38</sup>Suppliers were free to use their machinery for supplying meals elsewhere, as was being done by some.

Earlier, we had noted that there was little sign of Supreme Court guidelines being followed with respect to dalits, SCs, STs, women, and parents being employed in Delhi's midday meal scheme. One should note that Delhi's suppliers also did not seem to have a broader vision in the sense of wanting to improve their own performance. Naandi Foundation in Hyderabad, for example, is conducting surveys in a sample of schools to evaluate the health and nutrition impact of the meals it provides. A feedback sheet also goes to each school with the food cans, an indication that the organisation wants feedback from individual schools. Some of these ideas may be useful to transplant to Delhi.

#### **4. Observations from the schools**

##### A description of the event

The meal arrived between half past eight and half past nine in the morning schools and between half past one and half past two in the evening schools. The cooked food came in enormous aluminium containers in a variety of means of transport, and was kept outside the Principal's office until it was time for distribution.

From the vantage-point of the schools themselves, the distribution system seemed to be working well. The meal arrived on time. There were no complaints of food getting spoilt because of time lags at any point between the cooking and the eating of the meal, although this could well happen in Delhi heat.<sup>39</sup> Preparation of food reportedly began 4-5 hours before it reached the school where it often sat for 30 minutes to 1 hour before it was served.

Serving the meal was a fairly smooth procedure. The distributor sent his own people, ranging from one to three persons to serve the meal. Children in class 5 sometimes helped the distributor with moving the containers to just outside the classes and in some cases with handing out the *pooris*. But for the most part they had only the welcome task of eating the meal.

Generally, the children lined up outside the classroom and each child brought a tiffin-box<sup>40</sup> into which food was ladled in from the container. After getting the meal they returned to the classroom and ate it there. In a few schools the meal was eaten in recess outside the classroom.

No segregated distribution of food was observed as has been reported in some rural areas in Andhra Pradesh and Tamil Nadu during a 2003 study of caste discrimination in government food security programmes.<sup>41</sup>

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<sup>39</sup> The school survey was done in April, when temperatures were soaring to 40 degrees C. In July and August, with high heat and humidity, there were even greater chances that the food could spoil.

### Minimal impact on teaching time in the more functional schools

The entire process of serving and eating was generally done within half an hour. However, the actual teaching time disrupted in each school varied with the general level of school functioning. Schools generally began the process of serving between 15-30 minutes before recess; the more functional schools began classes when the time for recess was over; the less functional ones allowed recess to continue well beyond the allotted time.

### Quality – nutritive value and taste

In terms of taste, the quality of the meal was found to be sound for the most part with almost all items on the menu meeting the enthusiastic approval of the children. Many were observed enjoying every last grain on their plates, licking their fingers in delight. Rare was the child who did not take the food, and rarer still the school where the meal was not the highlight of the day. In particular, the children loved *dal chawal*, *chhole chawal*, and *pooris*.

In a few schools the teachers did claim that there had been worms and other pests in the food in the past. Our observation suggested that it was not easy to monitor quality. Dal or subzi could be watered down, and was. The *rajma* was often seen to have a few beans of rajma and a lot of gravy. The vegetable *pulao* had no vegetables. It was the least popular item on the menu because in several cases the supplier was sending rice with only salt and *haldi* and little oil or vegetables to make it palatable and nutritious.

### Quantity

Quantity issues were more doubtful on several counts. First, the amount allocated for each child was no more than two large spoonfuls of food. Far from a meal, it was at most a snack. The term “meal” is being used very loosely indeed. Second, teachers (who are in the school when the meal is served) are informed<sup>42</sup> only that the midday meal will have 300 calories and 8-12 grams of protein. What this translates into in terms of food or the rationale for serving this quantity is not explained. Third, the amount of food brought by the supplier was supposed to be based on the number of children who had attended the previous day.<sup>43</sup> There was no indication that there was such fine tuning between the school and the supplier. In spite of this, suppliers claimed there was rarely a shortage and even teachers said this. As discussed below, distributors had their way of stretching the food.

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<sup>40</sup> One school had distributed steel plates to all the children.

<sup>41</sup> See Thorat and Lee (2005).

<sup>42</sup> See MCD (2005a), D-43/DEO(MDM)2003, p. 53.

<sup>43</sup> From a conversation with a supplier.

From observation and from discussions with the children during the household survey, it appeared that the amounts distributed varied. There was an incentive for the distributors to give the younger ones a little less since distribution started with the youngest and then went up to the next grade and so on. For one thing, it increased the possibility that there would not be less for the older children and/or that there would be some left even after distributing the food to all the children. In some schools this meant second helpings for some children, and in others, a perk for the distributor.<sup>44</sup>

There were also several cases when the food did run short when the teams visited, and there was little sign of extra supplies reaching there.

#### Some attention paid to monitoring quality and quantity of food distributed

In most cases teachers supervised the distribution of the meal and the efficiency of the system was greatly enhanced by this as also the fair treatment of each child.<sup>45</sup> In some schools the distributors functioned on their own without much teacher supervision. In at least one boys' school, there was a lot of pushing and shoving in the queues to get the meal and the distributor commented that their work was more difficult in the boys' schools, which could be because boys were less biddable than girls and because there was more teacher supervision in girls' schools.

The school had instructions that a number of specified adults would taste the food each day before it was served to the children.<sup>46</sup> This was not done or done at most in a nominal way. No signs of parent involvement were seen. One HM reported that if a parent was visiting the school they did ask him/her to taste the food. Other teachers said that the suppliers were conscious that if the food didn't pass muster it would be returned, and so they ensured that the food supplied was of acceptable quality.

#### Lack of hygiene a major problem<sup>47</sup>

- While some of the distributors wore disposable gloves while serving the food, little emphasis seemed to be placed on their general cleanliness.
- In no school, did investigators see any cleaning up of the area where the food would be served or where the children would eat. In some schools, where children ate out in the open grounds, dust and dirt could well have found its way into the food.

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<sup>44</sup> In some schools, the supplier employed someone at the school itself for distribution; and these employees appeared to be allowed to keep the leftovers.

<sup>45</sup> This may not occur in as many schools as on days when there are no visitors.

<sup>46</sup> See MCD (2005a), p. 53. This had become particularly important when there had been several cases of food poisoning in 2003.

<sup>47</sup> Impact of NFI's monitoring role was far less apparent on the school sites. This seemed an important gap.

- What was also very serious was the fact that no one insisted that children wash their hands before the meal and only the rare child did. The importance of washing one's hands with soap before eating was completely overlooked. Hygiene was a casualty even when there was adequate supply of water in the school, which was rare.
- Children did wash their fingers and sometimes their tiffin-box after the meal. Even this was often done in an erratic way – in the corner of classrooms, in corridors without a drainage outlet. When the meal was eaten in classrooms it sometimes created a mess with *dal* and rice spilling on the ground.

#### Inadequate infrastructure and poor usage of existing facilities aggravated the problem of poor hygiene

In some schools the poor hygiene was related to inadequate infrastructure. In many schools, there were taps with running water, but not sufficient in number. Children brought water with them to drink. In one school, only one out of the five taps provided was functioning and there was always a big crowd around it.

In one school where construction had not been completed the facilities for provision of water, for drinking and washing, were not yet in place.<sup>48</sup> Insufficient or no supply of water was one more reason for teachers to excuse children going home during the recess, and perhaps not return to school.

The situation with toilets was also poor. In nearly every school, there were dirty toilets. In some cases, the toilets were just locked up and children encouraged to go in the open. Sometimes this area could be just behind the classrooms where children ate their food.

All the schools we visited had boundary walls and gates which could be locked, but this was not done. The gates were generally open throughout the school day, and particularly in recess, it was expected that children might want to go home. This certainly had implications for the number of children who stayed in school for the entire length of the school day.

#### Teachers' perceptions about the meal

Teachers were generally positive about the meal. Since they were not involved in supervising the cooking or the distribution, most did not feel it was an additional work responsibility. Also they felt it was useful in their schools where there were many children from deprived socioeconomic backgrounds.

But there were teachers who were negative for various reasons.

- Several teachers preferred dry food because it was easier to check quantity or quality or nutritive value or it was easier to give it to the children. One teacher came up with an additional argument. Dry food had less chance of being confused by parents as a substitute for food they provided at home.

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<sup>48</sup> The new toilet block was also not functional.



- One head teacher who was also a union leader was greatly against the scheme. He felt that there was little point providing a midday meal when the MCD was unable to provide proper drinking water in its schools.
- A teacher felt that they had little power over suppliers because the suppliers complained to higher authorities and it was assumed that the teacher was corrupt and wanted a payoff.

NFI evaluations on the functioning of the midday meal scheme in Delhi indicate a need for teachers to be sensitised to the need for such a programme.<sup>49</sup> Whatever the efforts made by the MCD on this front, we also felt that more is required<sup>50</sup> since the teachers' role is crucial in the extent to which the midday meal programme is successful, whether through monitoring the quantity and quality of the meal on an everyday basis; through minimising its impact on teaching time; or through maximising supplementary benefits such as socialising children of different backgrounds to eat together.

We end this section by mentioning some concerns about levels of teaching activity in the schools visited. It highlights the problem – children may be coming to school but would they be learning.

#### Low levels of teaching activity observed in some schools

Several factors observed by the research team were particularly disturbing.

- The class 1 section and any nursery section were generally left completely to their own devices. The impact of such neglect on young children at such a sensitive time<sup>51</sup> in their lives must be noted.
- In a number of schools, although teacher pupil ratios from attendance registers were good, two sections were seated together. Sometimes there were over 100 children.
- In some schools, different grades were put together, with the younger children getting only passing attention.
- Teaching activity, if any, was confined to a few children sitting in the front rows.

Children were seen strolling in and out of the school gate, and not only during recess. However, during recess a substantial proportion of children were seen going home (in some cases to eat their regular meal). This does carry the inherent possibility that the child may not return to school.

In the following section, we highlight parents' concerns and enrolled children's perceptions on the midday meal served to them and their school in general.

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<sup>49</sup> The NFI study is not available in the public domain, as it has been done for MCD and submitted to them.

<sup>50</sup> Detailed suggestions are made in the last section of the paper.

<sup>51</sup> Children who come away from the familiarity and comfort of their homes for the first time need to be given very special care.

## **5. Perceptions of parents and children**<sup>52</sup>

### 5.1 Parents' and children's perceptions of the current midday meal scheme

#### a. Issues of quality and quantity

Contrary to what one might expect, the cooked midday meal scheme did not enjoy overwhelming support among the parents of the children enrolled in the MCD primary schools in our sample. Just over half the parents in our sample did appreciate the quality of the cooked meal.<sup>53</sup> They praised it because they felt the children were getting freshly-cooked and tasty food. "Cooked food is the best," said the mother of an eleven-year old boy, "but the quantity is insufficient."

Table 2. Parents' response to quality and quantity of midday meal

(per cent)

Proportion of parents who said they were:	Quality of meal	Quantity of meal
Satisfied	53.3	47.5
Dissatisfied	45	50.8
No response	1.7	1.7
All	100	100

Note: In a few cases, the respondent was the child's elder sibling or another relative living in the same house.

Many children were thrilled with the hot cooked meal. They found the meal very tasty and it ensured that they were in school at least for the first half of the day. Some made certain qualifications. A 10 year old girl in class 5 remarked, for example, that she enjoyed the meal except when the food has less salt or the rice was undercooked.

However, as high a proportion of 45% of the parents in our sample were unhappy with the quality of the midday meal in general. The more drastic complaints included:

- "Cooked food is messy, unhygienic and a complete waste of time."
- "The food is not cooked properly."
- "The food is neither tasty or nutritious."
- "The food has worms." Some also mentioned cockroaches and flies in the food.
- "The food has stones and even glass."

<sup>52</sup> Some details about the respondents are available in the Appendix. In terms of economic status relative to other families in the slums, only 42% were poor or very poor.

<sup>53</sup> Parents' response to the quality of the midday meal was based mostly on their children's opinion since they hadn't tasted it as it was eaten in the school itself.

A few children reported that they found the food very unattractive and didn't necessarily eat it. They appeared to be fussy eaters and preferred to eat only home-food -- 9 year old Seema from a better-off family; also 8 year old Rakesh who had recently been shifted here from a private school.<sup>54</sup> Some children said that eating the food made them ill. These few children were confined to 2 sites.

Some parents were keen on a reversion to dry food being distributed as was done earlier. They suggested fruit, bread, biscuits, milk as options. The reasons were that it would be easier to deal with problems of quality and quantity control. Many children in one site had fallen ill so parents were particularly worried about the lack of hygiene. Dry food like fruit would also be more nutritious and healthy. Other reasons were also expressed – “Cooked food was a matter of taste,” said the mother of a little 7 year old girl; “Children like dry food they can snack on such as biscuits,” said the mother of two children who prefer to come home to eat; “also there will be less time wasted in distribution.”

Some parents and children who were happy with the quality of the meal were unhappy about the quantity. And there were some unhappy with both.

Their reasons for dissatisfaction:

- “The food is not sufficient for growing children.”
- “It is absurd to make children stand in such long lines for such little food.”
- “The food is too little to make a difference to a child's hunger.”

Some children made some additional comments related to quantity of food provided.

- A class 5 student noted that in her school younger children were given less food.
- A class 5 boy noted that they were given very variable quantities since theirs was the last class to get the meal.
- One distributor varied the quantity of food distributed according to the size of the tiffin-box.
- In one case, they were given extra rice if they wanted, but never extra pooris.
- One child said the server hit them with the spoon if they asked for more.

b. Is the cooked meal a substitute or a supplement

This issue is of consequence when one considers the nutritional impact of the midday meal. Parents in our Delhi survey did not feel that the cooked midday meal affected their child's food intake or eating patterns. In such a situation, the school meal would be a supplement to the child's normal intake and hence have some impact on their nutrition status and their overall health status. Of course the extent of the impact

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<sup>54</sup> To some extent, they were indicating a caste and class bias to the large institutionalised feeding programme.

would depend very much on the extent and quality of the nutritional input, and the child’s health status overall.

To explore this issue further, we look at what respondents reported about the children’s eating patterns, and found that it corroborated parents’ general perceptions. Most children treated the food served in school as a snack – girls ate a meal when they went home; boys ate a meal before they came to school. If lunch wasn’t ready before boys left for school, their parents reported that they ate what was served in school, came home at recess, ate their meal and then went back to school.

Table 3. Eating patterns among girls before and after school

	Frequency	Percent
<b>Before school</b>		
Nothing before morning school	2	6.67
Chai/fan before morning school	15	50.00
Meal before morning school	13	43.33
<b>After school</b>		
No lunch when come home	2	6.67
Lunch when come home	28	93.33

Note: Based on information about 30 girls enrolled in MCD primary schools.

Table 4. Eating patterns among boys before and after school

	Frequency	Percent
<b>Before school</b>		
Lunch at 9 am (4 hrs before school)	3	10.71
Lunch before boys leave	25	89.29
<b>After school</b>		
Meal at 6 pm (just after school)	18	64.29
No meal at 6 pm (child eats late with rest of family)	10	35.71

Note: Based on information about 28 boys enrolled in MCD primary schools.

Overall, parents felt that their children didn’t need the extra nutrition provided by the school meal, and in any case they didn’t need the government to provide any extra nutrition in school.<sup>55</sup> Many “poor” parents did feel that perhaps the meal was useful for very poor families (from which they excluded themselves).

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<sup>55</sup> As far as handouts went, parents were far more enthusiastic about the children being given books.

b. Majority of parents wanted the scheme to continue

Notwithstanding the general lack of support expressed by parents for the cooked meal scheme, around two thirds of those interviewed wanted the scheme to continue. They were happy that their children enjoyed the food (though they didn't necessarily think it was particularly important themselves). Among those who were enthusiastic about the scheme was the 18 year old elder brother who was the respondent in a household with 3 young children enrolled in primary school. He felt the meal was a great incentive for his siblings because it was tasty. Said another happy parent, "Children have become very interested in school after the midday meal started." In fact, this was said about both boys and girls and also about children of all ages.

Table 5. Parents' support for the cooked midday meal scheme

Proportion (%) of parents who felt:	
Meal should be continued	65
Meal should be discontinued	21.7
Had no opinion	13.3

Although most parents wanted the scheme to continue, some qualifications need to be made. It was not that parents who were unhappy with the scheme were confined to families who were economically better off. Some "poor"<sup>56</sup> families also disliked the scheme but these "poor" families appear to come from "comfortable" rural backgrounds and expressing disaffection with school feeding programmes may reflect a class bias to the midday meal scheme in general.<sup>57</sup> Such opinions were usually expressed by the better-off families whose views are given importance.

Parents were not impressed with the midday meal as an incentive for regular attendance. Although food was reported to be an attraction for the children themselves, parents themselves did not think such an incentive was required.

Eating cooked food together by children of different castes was not articulated as a significant issue by parents. On infrastructural issues, parents and children complained bitterly about the lack of drinking water in the school. In some schools they reported there was no drinking water at all.

5.2 Parents' perceptions about school functioning

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<sup>56</sup> Poor in terms of assets observed in the house.

<sup>57</sup> See Kumar Rana's discussion of parents' attitudes to the midday meal scheme in West Bengal. The more disadvantaged groups (SCs, STs, poor families in general) were positive, the more affluent were generally opposed to the idea (Rana, 2004).

Teaching quality was sorely indicted by 60% of households in the sample. Parents were very keen that the government should take some steps to improve the functioning of the school. They wanted, quite justifiably, that their children would learn something.<sup>58</sup> Raj in class 4 for example could not write a single word. Parents in one boys' school complained bitterly about a teacher who beat his students in class 1; another who made the boys run errands for him; and a teacher who during the exams, writes the answers on the board for children to copy.

With the anxiety about a lack of regular teaching, they were also upset that children were left unsupervised. In several schools, parents reported that this resulted in boys in particular getting into fights with each other, and in leaving school at will. Said the mother of 2 boys (9 and 10 years), "We don't mind if they don't give us anything but they should keep the children inside the school." Deep down her fear is that perhaps the government is substituting providing education with a small cooked meal and she doesn't want it.

Boys were particularly vulnerable to being in less functional schools. In 5 of 6 sites, the boys' schools were strongly criticised by parents and children; only in 1 of the 6 sites was the girls' school also strongly criticised.

Parents' concerns about insufficient supervision are well founded. We have noted in the previous section that children generally had free entry and exit from school, not conducive to them attending a full school-day. In fact, 25% of the enrolled children reported that they regularly return early from school (see Table) – certainly these were more likely to be boys<sup>59</sup> or little ones six years and below.<sup>60</sup>

Table 6. Frequency with which the child returns home early from school

Proportion (%) of parents who said their child returns home early from school:	
Regularly	25
Rarely	18.3
Never	56.7

On a positive note, about 40% of the parents were happy with the teaching quality in the school. Often they were happy with the discipline, or they were happy specifically with the teaching; in some cases it was a particular teacher; in others it was because they were in classes 4 and 5 and in some schools they were paid more attention.

<sup>58</sup> Many mothers said that they send their children for tuition hoping that there they might learn something.

<sup>59</sup> In the case of boys, the possibility that they were attending a school in which there was little discipline or regular teaching was much higher.

<sup>60</sup> In the case of little ones, teachers seemed to pay them less attention than the older classes, and parents also seemed to give them more leeway to come home early.

In the next section, we draw the threads together from the different strands of our research and highlight the main issues.

## 6.1 Discussion

### Two notable outcomes for children in the present scenario:

The cooked midday meal scheme in Delhi is having a positive impact on education through improving equity and reducing the gender gap.

(i) Improving equity. It is drawing children to school, particularly boys from poor families. Enrolment has not increased greatly because numbers never enrolled at primary school level are already low.<sup>61</sup> Teachers and parents indicate that attendance of children is much better and that the cooked meal is a draw. Our visits to the school suggested that the meal is a great highlight of the school day and children genuinely welcome it. In one school we observed children with eyes shut in finger licking bliss.

10 year old Mithilesh from a poor family who is enrolled in class 4 says the midday meal makes him happy. It is hot and he likes eating with his friends. His mother works a 12 hour shift in a nursing home nearby, while his 13 year old sister looks after the house. The cooked meal is a help for Mithilesh and his sister and mother since it feeds him and reduces the work they have to do.

(ii) Reducing the gender gap. It has the potential to significantly improve the attentiveness of children who come from the 7.30 a.m. to 12.30 p.m. shift. The majority of these are girls and 55% (17 out of 30) of those interviewed said they came to school having had at most chai and fan (a long dry thin piece of toast). NFI documents suggest that breakfast is not part of the diet of most families in the lower income group.<sup>62</sup> Any contribution to nutritional levels of girls also has the potential to reduce the possibility of low birth-weight babies born to underfed mothers.

Nevertheless, there is scope for improvement and we make some suggestions after first highlighting some important deficiencies in terms of fulfilling of Supreme Court orders.

### Deficiencies in fulfilling Supreme Court orders:

#### a. Quality and quantity of meal served is likely to be below the minimum stipulated by the Supreme Court:

Observation of the food distributed in school and conversations with the children during the household

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<sup>61</sup> See De et al. (2005), where household surveys in Delhi reveal that proportions never enrolled are very low and confined to girls from very poor families in particularly difficult circumstances.

<sup>62</sup> See GOI (n.d.), Guidelines For Central Assistance Under The National Programme For Nutritional Support To Primary Education.

survey did not indicate that even the minimum goal of 300 calories and 8-12 gms of protein was being met. An evaluation done by the Nutrition Foundation of India in a sample of MCD schools confirms that in most schools children were getting less than the stipulated minimum in terms of calories and nutrients.<sup>63</sup>

b. Quality of rice provided by FCI was not of “good quality” as specified by the Supreme Court:

Suppliers complained it was full of stones and impossible to cook in bulk, so they actually exchanged it in the open market for a better quality of rice. The subsequent increase in costs was likely to be met by a drop in the amount spent on other ingredients going into the meal, impacting nutritive value and/or taste.

c. Dalits, SCs, STs and women were not given preference in the appointment of cooks and helpers: This type of affirmative action did not appear to be of any consequence in MCD’s choice of suppliers.

d. Infrastructure to enable the scheme to function at optimum was not present in the school: While infrastructural facilities in the kitchens appear to have received considerable attention certainly facilities at the schools themselves were far from adequate. It is likely that there has been an improvement – there was evidence of construction activity, of new water tanks, but it was still not sufficient for children to be sent to wash their hands with soap before eating, or to wash their hands again after food, or to have water to drink.

## **6.2 Recommendations**

a. Parents and teachers need more information about the potential benefits of the cooked midday meal scheme

1. Parents need to know that the purpose of a cooked midday meal is closely related to their children’s learning: that its purpose is

- to make school more attractive for children,<sup>64</sup> and thus improve enrolment and attendance and reduce dropping out,
- to improve attentiveness, memory and learning,<sup>65</sup> particularly in the context in which many children come to school on an empty stomach in the morning,<sup>66</sup> and
- to reduce the likelihood of children leaving school early because of hunger.

2. Parents need assurance that the government is concerned about the quality of the midday meal and has a scheme in place to ensure that the food is fresh and nutritious and tasty. They need to be better informed about what the midday meal is supposed to provide; also that the quantity and content of the school meal is not enough to substitute for a meal. Parents also need to know why dry food is not a substitute for providing a hot cooked meal to children in the school itself -- its direct nutritional impact on the child is likely to be far lower compared to a cooked meal.

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<sup>63</sup> The NFI study is not available in the public domain, as it has been done for MCD and submitted to them.

<sup>64</sup> Directly through providing food and through giving them an activity which they can look forward to.

<sup>65</sup> See Levinger (1996) cited in Ramachandran (2003).

<sup>66</sup> NFI (2003) makes the point that a good early morning breakfast is not part of the household routine. This was corroborated by our survey as discussed earlier.



3. Judging from the mixed reaction of teachers to the cooked midday meal scheme in Delhi, it is clear that teachers also need to have much greater awareness of the rationale behind the cooked midday meal scheme and the potential impact on education of this and other inputs into the children's health.<sup>67</sup>

b. Parents need to be involved on a day to day basis

In none of the 60 households we visited in the 6 different sites spread over Delhi was any parent involved in cooking or distributing the meal (as part of a SHG or an NGO) or in monitoring the midday meal (by tasting it at the school) or in giving the authorities feedback on the content, quality or quantity of the food.

Such feedback is likely to be useful for several reasons. To begin with, the government is providing a service to their children, not just any service, but cooked food. They have a stake in the quality of the service. Mothers in particular can play an important role in monitoring the process. They are on the spot, in the sense that the children's homes are generally within walking distance of the school. Hence the costs of involving them are not high. Bringing them into school might increase the possibility of their being able to support their child through the education process. Teacher accountability may increase if the parent community is more actively involved.

c. Supplementary benefits of the midday meal scheme need to be explored by the school management and the teacher body

1. The meal could have an important socialization aspect. In no school were children being asked to collect their food and come and sit together and eat. Over time, this could result in greater oneness and cohesiveness among the children in a class. A good example is provided by a researcher who visited a school in Tamil Nadu, where children were observed to first sit together and wait until they all had their food and then say "thirukuaral" in unison before they began to eat.<sup>68</sup>

2. Various aspects of a cooked meal could be made part of the curriculum. The meal gives teachers a chance to use a daily and shared experience in classroom teaching. For example, names of vegetables / colours / size / consistency for the younger ones; the nutritive value of different foods for the older ones.

3. Schools were neglecting the chance to teach the children something about hygienic eating habits, related both to personal hygiene and understanding the importance of the cleanliness of the surrounding areas. In fact the way in which the distribution of the meal was organised in schools was a powerful and negative demonstration of a lack of attention to issues of hygiene and overall cleanliness.<sup>69</sup>

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<sup>67</sup> The NFI has also stressed in its evaluations that all those involved in the implementation of the midday meal scheme need to be informed on various aspects for it to have the right impact.

<sup>68</sup> From a Midday Meal Handbook prepared by Jean Dreze and S. Vivek. See [righttofoodindia.org](http://righttofoodindia.org)

<sup>69</sup> Paying attention to issues of hygiene are subject to very practical constraints such as lack of potable water in schools (see Bennett, 2003), very much the experience in Delhi schools we visited.

4. In addition, a cooked meal is a chance for children to eat healthy and nutritious food. There will be less need for them to buy snacks from vendors. These use up scarce cash resources in poor households and may have little nutritional value as well as not be hygienically prepared or stored.

d. The meal needs to go beyond the minimum in terms of nutrients provided.

All the efforts involved in putting in place a scheme of this type will not be rewarded if more effort is not paid to the quantity and quality of the meal provided. An NFI workshop in July 2003 recommends that midday meals should seek to provide “for each school child, on each school day, roughly a third of the daily nutrient requirement in the form of a hot fresh cooked meal. This translates into an energy requirement of 350-500 kilocalories depending on the age of the child (and corresponds to about 100-125 gms of cereal). Apart from cereals, the meal should contain a good quantity of vegetables, particularly green, leafy vegetables, to combat deficiencies in micronutrients.” There was no attempt to meet this standard in the Delhi midday meal scheme. In particular Delhi’s menus pay scant regard to vegetables, specially green, leafy vegetables. At the most it is potatoes on 2 days in the week.<sup>70</sup>

Further, one should note that even this amount is far less than what is provided by the Andhra Pradesh and Tamil Nadu governments in their midday meal schemes. While Delhi’s schoolchildren are getting 300 calories (at best) in keeping with the Supreme Court’s order which requires this to be a minimum, children in Hyderabad and Secunderabad get 365 calories. This is while Delhi’s budget allocation is Rs 2 per child and Hyderabad’s is Rs 1.50.<sup>71</sup> In contrast to Delhi’s cereal and lentil based menus, Naandi Foundation provides rice, *sambar* and vegetables as a daily menu.

In Tamil Nadu the noon meal is a substitute for a home meal rather than a nutritional supplement. It comprises 100 gms of rice combined with 15 gms of dal with 1 gm of oil, 50 gms of vegetables, and necessary condiments together giving 435.3 kcals of energy and 11.15 gms of protein at a cost of 1.29 per child per meal. This fits far more into the general conception of what constitutes a school feeding programme.

e. The midday meal scheme needs to be linked with other health inputs.

The UNICEF causal model of malnutrition highlights inadequate knowledge as a basic cause.<sup>72</sup> Parents need nutrition and health education so they can be aware of the extent of undernourishment among children

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<sup>70</sup> Nutrinuggets were mentioned but not observed.

<sup>71</sup> This rate applies to schools with over 100 children. See an article by Our Special Correspondent published in *The Hindu* on 19 Feb. 2003.

<sup>72</sup> Nalamdana is a Chennai based organisation doing research on the knowledge gaps about nutrition among adolescents and young mothers in urban slums. See [www.nalamdana.org](http://www.nalamdana.org)

in this age group, its impact and what can be done about it.<sup>73</sup> In fact, nutrition and health education is vital also for teachers and the community at large.<sup>74</sup>

In addition, the child's system has to be such as to be able to benefit from this dietary supplement. Several studies indicate that a nutritional supplement has limited value if given in isolation. The study of school-children in 3 districts in Gujarat found the children suffering from a host of infections,<sup>75</sup> and strongly recommend that in addition to the meal, each child receives deworming tablets and iron and vitamin A supplements. Experts indicate that the combination of the midday meal with such health inputs could make a difference to the child's learning capacity.

f. Monitoring the overall functioning of the school needs more attention from MCD.

The midday meal is not functioning in isolation. In fact, it cannot impact education if there is little teaching taking place in the school. Security of children who come to school cannot be neglected. As mentioned earlier, parents were disturbed by the low level of functioning in many schools and constantly reiterated that education was more important for them than any school feeding programme. What parents are asking for is what is already envisaged in plan documents where it is suggested that a Committee which should be set up to look after the implementation of the midday meal programme should ensure and look after the convergence of the programme with primary education.<sup>76</sup>

Children in vulnerable situations are most likely to drop out or be taken out as a result of poor functioning schools, since the perceived costs of sending them are high, and with low-quality schooling the perceived benefits of sending them are low.<sup>77</sup> This would crush the hopes and aspirations of parents and children on an individual level quite apart from the negative impact on the larger picture in taking universalisation of education forward.

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<sup>73</sup> Parents need more information about the calorific value of foods; how frequent infections such as diarrhoea and respiratory infections greatly reduce the ability of the child to absorb nutrition; and how the vulnerability to these infections is greatly increased among the undernourished. Consequences of poor nutrition and health status is poor mental and physical growth.

<sup>74</sup> Rajivan (2003) discusses these issues in detail.

<sup>75</sup> Intestinal worms, upper respiratory infections, malaria, diarrhoea, skin infections like scabies and many others were commonly found.

<sup>76</sup> Linkages with other areas such as primary health care, early childhood care and education, nutrition and other related services have also been mentioned.

<sup>77</sup> See Deshmukh-Ranadive (2002) who discusses how perceptions of costs and benefits play an important part in schooling decisions.

## 7. Conclusion

In contrast to the time when fruity bread and biscuits were distributed, the energy put in by the MCD into the functioning of the midday meal programme has seen a sea-change.<sup>78</sup> In this context, one can observe that the Supreme Court's injunctions since 2001 have been extremely important for Delhi's primary school children. Today 9,50,000 children in 1863 schools<sup>79</sup> are being provided freshly cooked food on schooldays. The school survey revealed all the children enthusiastically queueing up and eating the food provided, so there is no doubt that the authorities are doing something right. It was hard to find a child who wasn't eating. We have noted how the midday meal is particularly valuable for boys from very poor families and for girls who leave early in the morning for school without breakfast.

It is important to note that the midday meal in itself is not disrupting the teaching environment in schools. Care has certainly been taken to see that teachers are not burdened by meal procedures. Unfortunately, children are not necessarily being taught during the time they are in school. In many schools, they also have the freedom to leave when they wish. Monitoring of the midday meal is taking place. Monitoring of school functioning is certainly required.

Finally the quantity and quality of the midday meal being served to Delhi's school-children needs to be improved. Deficiencies with regard to Supreme Court guidelines have been discussed. But there is a need to go beyond providing the minimum in terms of nutrients. So far what is provided does not justify the term "midday meal". Efforts must also be made to ensure that supplementary benefits of the scheme are explored.

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<sup>78</sup> In a study of the midday meal in Delhi in 1997-98, it was found that in the majority of schools, the meal was not even provided on a regular basis on all school-days. See the evaluation done by NCT Delhi for the period 1.4.97 to 31.3.98.

<sup>79</sup> These include 1819 MCD run schools and 44 MCD aided schools. Information was provided in a "Note regarding midday meal in MCD schools" by MCD, Department of Education.

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## Appendix

### School survey:

The 12 government primary schools in the sample were not of similar size in terms of enrolment (see Table A.1). We had 1 site with small schools in north Delhi, 2 sites with medium sized schools in north west Delhi and north east Delhi, 3 sites with large schools in east Delhi, southeast Delhi and south Delhi. In each site, we visited the girls' school and the boys' school.

Table A.1: Enrolment in sample schools

	N	NW	NE	E	SE	S
Morning shift: Girls	284	405	446	742	846	907
Afternoon shift: Boys	181	472	421	811	725	701

Note: N, NW,... stand for North, Northwest, ... and give a general idea of the zone-wise location of the school. All schools serve families living in slum areas and resettlement colonies, generally on the outskirts of Delhi.

### Household survey:

There were 60 households surveyed with 6-10 year old children enrolled in the sample schools; 48 girls and 56 boys – 104 in total. However, detailed information in each household was confined largely to one child in the household.

The average age of the respondents was 37 years. The majority were female<sup>80</sup> (80%). Respondents generally needed the enrolled child to respond to questions about school functioning, and more particularly about the quantity and quality of the midday meal. In this the household survey benefited by being conducted in the holiday month of June.

Most families were Hindu (86.7%), the rest were Muslim. In terms of economic status relative to other families in the area, close to one-fourth were comfortable, one-third were average, and nearly 42% were poor or very poor (see Table A.2). Families in our sample with girls enrolled in sample schools were generally better off than the families with boys enrolled in the sample schools: 55% of the enrolled boys in our sample were from poor and very poor households while the same figure was only 33% for the girls.<sup>81</sup>

Table A.2 Economic status of households (per cent)

Very poor	Poor	Average	Comfortable
3.3	38.3	33.3	23.3

Sources of livelihood among the men were generally confined to the unorganised sector.

The range are given below.

#### 1. Employment

- in private companies including a private bank, a company selling electronic goods: educational qualifications were class 10, 12 and graduation. Salaries in the region of Rs 3000 and above.
- in shops and small establishments including book-binding, making cardboard boxes for sweets: nature of job not always clear but educational levels low and salaries as low as Rs 2000 per month.
- in factories: skilled labour -- makes badminton corks; makes bartans; tailor; presswala in export factory (earnings about Rs 3000 per month)

#### 2. Self employed:

- own textile business
- in petty retail: corner shop selling groceries; own sweet shop; katran (strips of cloth) shop
- skilled labour: carpenter, electrician; presswala; tailor; driver; truck driver; painter, mistri;

<sup>80</sup> Not all the four-fifths of female respondents were the child's mother. This group included grandmothers, aunts, and sisters.

<sup>81</sup> Some sample households had both boys and girls enrolled in the sample schools.

- itinerant providers of services: ply swings for children in the evenings; kabaadiwala; selling bangles on a cycle; sabziwala.
- 3. Unskilled labour such as:
  - Whitewashing / mistri
  - mazdoori (on construction sites) / beldari Rs 100 per day

Sources of livelihood among the women:

1. employed outside as domestics – cooking, cleaning; washing
2. full time employment in institutions: ayah in a nursing home; tailor in a company; employed in a factory; in a private company
3. home-based work included those:
  - Self employed -- making raakhees in family business; own katran shop
  - Doing job work – making bindis
4. Mazdoori (Rs 40 per day)