

The future of mid-day meals

A recent survey suggests that school meals have made a promising start around the country. Yet, quality issues need urgent attention if mid-day meal programmes are to realise their full potential. Improved mid-day meal programmes could have a major impact on school attendance, child nutrition, and social equity.

JEAN DREZE
APARAJITA GOYAL

INTRODUCTION

In a landmark order dated November 28, 2001, the Supreme Court of India directed all State governments to introduce cooked mid-day meals in primary schools within six months. Most State governments missed the deadline, and even today, some States (notably Bihar and Uttar Pradesh) are yet to comply. Nevertheless, the coverage of mid-day meal programmes has steadily expanded, and cooked lunches are rapidly becoming part of the daily school routine across the country (see map).

As millions of children flock back to school after the summer vacation, it is worth examining what mid-day meals have achieved and how they can be improved. Tamil Nadu's experience suggests that well-devised school meals have much to contribute to the advancement of elementary education, child nutrition, and social equity. However, these achievements depend a great deal on the quality aspects of mid-day meals. Ramshackle mid-day meal programmes can do more harm than good.

To illustrate, consider the primary school in Bamhu (Bilaspur district, Chhattisgarh). The mid-day meal there is prepared in a soot-covered classroom using a makeshift stove, next to the swarming pupils. The cook struggles with inadequate utensils and takes help from young children for cutting the vegetables. According to the teacher, no teaching takes place after lunch as the classroom turns filthy. He wishes mid-day meals would be discontinued.



Mid-day meals being served at the Government Higher Primary School at Boothanahosur in Mandya district, Karnataka.

Bamhu is an extreme example, and it is important to arrive at a balanced assessment of the state of mid-day meals in India today. This was the main purpose of a recent survey initiated by the Centre for Equity Studies, New Delhi. This article presents an exclusive preview of the main findings.

THE MID-DAY MEAL ROUTINE

The survey took place between January and April 2003 and covered 27 randomly selected villages in each of three sample States: Chhattisgarh, Rajasthan and Karnataka (Chart 1). The field survey involved detailed interviews with teachers, parents,

cooks and others in these 81 sample villages, with a focus on qualitative as well as quantitative data.

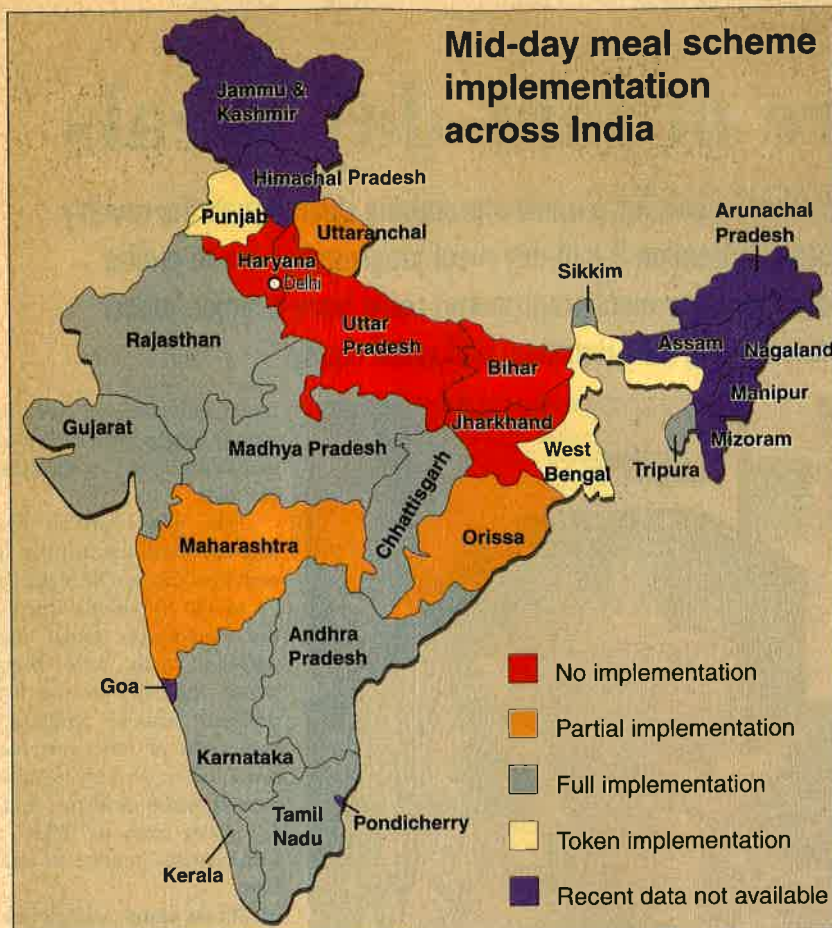
The good news is that mid-day meals are in place in each the three sample States. In 76 of the 81 sample schools, the investigators found that mid-day meals were being served regularly. In the five problem schools, temporary bottlenecks of some sort had arisen (Chart 2). Leaving aside these sporadic incidents, mid-day meals seem to follow a well-rehearsed routine in each State.

All the sample schools have a cook, who prepares the meal after obtaining the grain and other ingredients from the teacher or sarpanch. Infrastructural facilities (cooking shed, water supply, utensils and so on) vary between different States and districts, and leave much to be desired in many cases. Yet, the mid-day meal usually materialises at mid-day, and children seem to enjoy the lunch break.

In Rajasthan, the menu is the same every day: *ghoogri*, a gruel made of boiled wheat mixed with gur, with oil and peanuts added in some cases. In Chhattisgarh, lunch usually consists of rice with dal or vegetables, with some variation over the week. Karnataka provides the most convincing menu: aside from rice with *sambhar*, schoolchildren there often enjoy other items such as vegetables, *pongal*, lemon rice and even sweets like *kshira* and *sajjitha*.

Some poor households in Karnataka described the mid-day meal as "festival food", compared to what they eat at home. Second helpings are usually allowed and the quantities seem adequate for young children.

Mid-day meal scheme implementation across India



ported that mid-day meals had made it much easier for them to persuade their children to go to school in the morning. Most teachers also felt that mid-day meals had raised daily attendance, especially among young children. Some of them added that mid-day meals make it easier to retain pupils after the lunch break – we shall return to that.

END OF CLASSROOM HUNGER

"The children of agricultural labourers used to lose interest and fall asleep around mid-day, because they were hungry. This is not a problem anymore."

(A headmaster in Manihalli village, Bellary district, Karnataka.)

Assessing the impact of mid-day meals on child nutrition was beyond the scope of the present study. However, two nutrition-related achievements do emerge from the survey.

First, mid-day meals facilitate the abolition of classroom hunger. Many Indian children reach school on an empty stomach in the morning, as early-morning breakfast is not part of the household routine. In the absence of a mid-day meal, pupils often go hungry after a few hours and find it hard to concentrate. This problem is now largely resolved.

Second, in the more deprived areas, the mid-day meal is a protection against hunger in general. This year, for instance, mid-day meals have helped to avert an intensification of child undernutrition in many drought-affected areas. Similarly, poor households such as those headed by widows or landless labourers value the assurance of a free lunch for their children. The contribution of mid-day meals to food se-

SCHOOL ENROLMENT GOES UP

Earlier research on primary education in rural India suggests that mid-day meals enhance school participation, especially among girls. One recent study estimates that the provision of a mid-day meal in the local school is associated with a 50 per cent reduction in the proportion of girls who are out of school.¹ Similar effects were observed in the present survey: school enrolment shot up after mid-day meals were introduced (Chart 3).

This observation is based on comparing school enrolment in July 2002 with the corresponding figures one year earlier, before mid-day meals were introduced. Taking the 81 sample schools together, Class 1 enrolment rose by 15 per cent between July 2002 and July 2003. This surge in enrolment is driven mainly by impressive jumps in female enrolment in Chhattisgarh (17 per cent) and Rajasthan (29 per cent). Provisional enrolment data for Chhattisgarh and Rajasthan as a whole, supplied by the Education Department, also suggest major

"Now I don't have to take my son to school every day, as he goes there on his own initiative. He enjoys eating with other children at school."

(Ganga Bai, Bade Guntale village, Raigarh district, Chhattisgarh.)

jumps in female enrolment in 2002-03: 19 per cent and 18 per cent, respectively. There is a striking break here from the trend increase in school enrolment (about 2 per cent per year in the 1990s), and the bulk of this break is likely to reflect the impact of mid-day meals.

There is also much informal evidence that mid-day meals have enhanced daily school attendance (and not just annual enrolment). Many parents, for instance, re-

"We have to toil hard for our daily bread, and it is good that our children get at least one meal to eat because sometimes we don't have any food."

(Phoolji Damore, a tribal parent in Banswara district, Rajasthan.)



1. The survey at a glance

State	Chhattisgarh	Rajasthan	Karnataka*
Date of survey	April 2003	February 2003	Feb-March 2003
Sample districts	Bilaspur, Dhamtari, Raigarh	Banswara, Churu, Tonk	Bellary, Gulbarga, Raichur
No. of sample schools	27	27	27
No. of sample households**	95	106	45

* In Karnataka, the mid-day meal programme was confined to 7 districts at the time of the survey. The sample districts were selected from that list.

** The households were selected through stratified random sampling from the school registers.

1. Jean Dreze and Geetha Kingdon (2001), "School Participation in Rural India", *Review of Development Economics*, 5.

curity seems to be particularly crucial in tribal areas, where hunger is endemic.

LEARNING TO SHARE

Aside from boosting school attendance and child nutrition, mid-day meals have an important socialisation value. As children learn to sit together and share a common meal, one can expect some erosion of caste prejudices and class inequality.

Of course, mid-day meals can also be a tool of reinforcement of prevailing social inequalities. For instance, during the pilot survey in Rajasthan, we found one village (Joz in Rajasamand district) where Dalit children had to drink from separate pitchers. This is an abominable instance of caste discrimination in the classroom, which defeats the socialisation role of mid-day meals.

How common is caste discrimination in the context of mid-day meals? The survey evidence suggests that open discrimination is rare. For instance, we did not find any cases of separate sitting arrangements, or of preferential treatment for upper-caste children. Pupils of all social backgrounds seem to be quite happy to sit together and share the same food. Parents, too, claim to welcome the arrangement in most cases. Teachers confirmed that parents rarely objected to their children sharing a meal with children of other castes. And among disadvantaged castes, very few parents felt that their children had ever experienced caste discrimination in the context of the mid-day meal (Chart 4).

"All children sit and eat together. This way they grow up as better individuals. This promotes the feeling of togetherness."

(A Dalit father in Govind Pura village, Tonk district, Rajasthan)



To school with their own plates and water bottles in Mandya district, Karnataka. Mid-day meals can play a major role in boosting school attendance, eliminating classroom hunger and fostering social equity.

2. Reasons why mid-day meals are irregular in some schools

Chhattisgarh	(2 schools) - Sarpanch does not cooperate.
Rajasthan	(1 school) - No money for firewood.
Karnataka	(2 schools) - Rice delivery is irregular.

Note: In all other schools (76 out of 81 sample schools), mid-day meals are being served regularly.

3. Surge in school enrolment

Estimated increase in Class-1 enrolment between 2001-2002 and 2002-2003 (in per cent)

Chhattisgarh	11
Rajasthan	18
Karnataka	14
Three States combined	15

In Rajasthan, female enrolment in Class 1 rose by 29 per cent in the sample villages after mid-day meals were introduced. Official enrolment data suggest a jump of 18 per cent in Rajasthan as a whole.



These responses, however, do not rule out subtle forms of caste prejudice and social discrimination. Upper-caste parents were often sceptical of the mid-day meal scheme, and even actively opposed it in a few cases. Some upper-caste parents send their children to school with packed food, or ask them to come home for lunch. Whether this is a manifestation of caste

prejudice (as opposed to class privilege) is not always clear, but the caste factor is likely to play a part in many cases.

Further, there does seem to be much upper-caste resistance to the appointment of Dalit cooks. In Karnataka, half of the cooks in the sample were Dalits, and there seems to be wide social acceptance of this arrangement. In Chhattisgarh and Rajasthan, however, cases of Dalit cooks were largely confined to schools with no upper-caste children. We also noted instances of active parental resistance to the appointment of Dalit cooks, as in Kolu Pabuji (Jodhpur district, Rajasthan) where a Rajput parent had thrown sand in the mid-day meal because it had been cooked by a Meghwal woman.

These findings do not detract from the general socialisation value of mid-day meals. In a sense, they even enhance it: if upper-caste parents initially resist mid-day meals, there is much value in overcoming that reluctance. There are strong indications that the caste barriers tend to weaken



4. Perceptions of caste discrimination

Headteacher's responses

	Yes	No
Have any upper-caste parents ever objected to their children sharing a meal with children of other castes?	3	97
Have upper-caste children ever expressed unhappiness about sharing a meal with children of other castes?	1	99

Parents' responses

Do you have any objection to children of different castes sharing a common meal at school?	4	96
Do you feel that your children have ever experienced any discrimination at school, at the time of the mid-day meal, because of their caste?	1	99

*As a proportion (in per cent) of valid responses

5. Cooking space in the sample schools



quite rapidly over time.

GENDER ASPECTS

"My husband died and my four children are totally dependent on me. I am very poor, so now I have started cooking for the children in school and my own two girls also go to class 2 and 3."

(Renakamma, Holalu village, Bellary district, Karnataka.)

Aside from helping to defeat caste prejudices, mid-day meals also contribute to gender equality. Indeed, mid-day meals reduce the gender gap in education, since they boost female school attendance more than male attendance.

Mid-day meals also contribute to gender equality by creating employment opportunities for poor women. In the sample schools, a large majority (68 per cent) of the cooks are women, and most of them come from underprivileged backgrounds. This is not surprising, since the work is fairly demanding and salaries are low. In addition, the scheme guidelines often state that priority should be given to disadvantaged persons when cooks are appointed.

"Since our child has started getting food at school, we don't need to worry about him going hungry, and I don't need to come back after half a day's work to prepare his lunch."

(Sudan Mati, a 35-year-old tribal woman from Bankighat village, Bilaspur district, Chhattisgarh.)

In Karnataka, for instance, the guidelines clearly specify that all cooks should be women and that preference should be given to widows.

There is another important way in which mid-day meals contribute to the liberation of working women: when children get a hot meal at school, mothers are free from the burden of having to feed them at noon. This feature is especially relevant for widowed mothers, who often work outside the house without the benefit of any domestic support.

6. Inter-State contrasts (percentage of sample schools with given features)

State	Chhattisgarh	Rajasthan	Karnataka
General school infrastructure			
More than two classrooms	41	48	73
More than two classrooms and teachers	18	30	61
Mid-day meal arrangements			
Cook has been appointed	100	100	100
Mid-day meals are served regularly	93	96	93
Menu varies from day to day	30	19	96
At least one 'helper' appointed	21	0	85
Pacca kitchen is available	18	7	27
Cook is a Dalit	18	37*	50
Headteacher's perceptions			
Grain quality is "fair" or "above average"	92	100	85
Grain delivery is regular and timely	93	100	50
MDM has boosted pupil enrolment	70	83	75
MDM has enhanced pupil interest in studies	66	70	72
Some parents have opposed the MDM	19	8	4
Some parents oppose all-caste school meals	0	7	0

*Mainly in tribal hamlets of Banswara district.



A makeshift kitchen in a government school at Aladahalli near Shlmoga, Karnataka.

TWO COUNTER-ARGUMENTS

Mid-day meals are not without their critics and detractors. Some of the criticisms are easy to dismiss, such as contrived arguments from high-caste parents whose real concern is that the mid-day meal is a threat to the prevailing social hierarchy. However, there are also serious criticisms to consider.

A common charge is that mid-day meals are a health hazard, because they are not prepared in hygienic conditions. This argument should not be lightly dismissed, but the survey evidence points to a more nuanced assessment of the problem. Pupils do feel unwell from time to time after consuming the mid-day meal: about 10 per cent of the parents said that this had happened to their children at least once during the preceding 12 months. The problem is especially common in Rajasthan, where *ghoogri* is served day after day. *Ghoogri* needs to be boiled for several hours, and is hard to digest when it is under-cooked.

On the positive side, 90 per cent of the children never had any problem, and the

indispositions experienced by the other 10 per cent were not serious in most cases. The incidents usually occurred in the early days of the mid-day meal programme, when quality safeguards were lacking, and the situation appears to have improved over time. The lingering cases of occasional indigestion at school carry little weight against the enormous health gains (present and future) that may be expected from higher school attendance and reduced hunger in

the classroom. The real message here is not that mid-day meals should be discontinued, but that greater attention should be given to quality issues. For Rajasthan, there is also a more specific message: diversifying the menu would be helpful.

Another common argument against mid-day meals is that they disrupt classroom processes. Some media reports even suggest that teachers spend their precious time cooking instead of teaching. In fact, cooks have been appointed in all the sample schools and we did not encounter any case where the teachers doubled as chefs. But many of the teachers we interviewed did spend a fair amount of time in organising and supervising the mid-day meal. And mid-day meals can certainly disrupt classroom processes when the infrastructure is inadequate. For instance, in schools with no cooking shed (Chart 5), the mid-day meal is often cooked very close to the space where children are meant to be studying. Not surprisingly, teachers in these schools often complain that the sight and smell of hot food has distracting effects on the pupils.

"Of the two rooms in the school, one is used for cooking. All children then have to sit in the same room. This disrupts the teaching process in the school."

(Teacher, Ramatnala village, Raichur district, Karnataka.)

In one important respect, however, mid-day meals have positive rather than negative effects on classroom processes: they make it easier to reconvene the classes after the lunch break. When children go home for lunch, many do not come back, especially if the distance is large. Today, according to a large majority (78 per cent) of the teachers interviewed, afternoon attendance is roughly the same as morning attendance.

In short, the fact that mid-day meals are potentially disruptive in some respects is not an argument for discontinuing them. Rather, it is another pointer to the need for qualitative improvement. If adequate facilities are available, classroom activity can be readily insulated from the cooking process.

REGIONAL CONTRASTS

There are sharp contrasts in the quality of mid-day meals across the country. These contrasts are not fully reflected in our survey, confined as it is to three sample States. Nevertheless, important regional variations emerge.

To start with, the quality of school-meal programmes is significantly better in Karnataka than in Chhattisgarh or Rajasthan. In fact, Karnataka's distinction applies to the schooling system generally. For instance, the majority of schools in Karnataka have more than two teachers as well as more than two classrooms, a rare occurrence in Chhattisgarh or Rajasthan (Chart 6). The classroom environment also tends to be more stimulating in Karnataka. In line with this positive track record, Karnataka has made comparatively good progress in building a sound infrastructure for mid-day meals: most cooks enjoy the assistance of a "helper", and a substantial proportion of schools (31 per cent) already have a *pucca* kitchen. In contrast, the mid-day meal infrastructure in Chhattisgarh and Rajasthan is still highly inadequate: most cooks have to cope in the most challenging circumstances, without elementary facilities such as a helper, kitchen or proper utensils. Karnataka

also fares better than Chhattisgarh or Rajasthan in terms of a range of other quality indicators.

Having said this, it is interesting that Rajasthan fares best in terms of food logistics and monitoring. For instance, all schools in Rajasthan reported timely delivery of grain, and teachers invariably described the quality of grain as "fair" or (more frequently) "above average". There is a useful lesson here about what can be achieved with adequate political will, even in a State like Rajasthan that is widely (and perhaps unfairly) perceived to belong to the infamous BIMARU set (Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh). In Rajasthan, the State government took an early decision to throw its weight behind the Supreme Court order of November 2001, and a powerful monitoring committee closely supervised the programme from the beginning. The timely delivery of good-quality grain, even in remote schools, seems to be a reflection of this strong commitment to mid-day meals.

The main problem in Rajasthan is that, in spite of the State government's declared commitment to mid-day meals, money is too short. The Government of Rajasthan spends only 50 paise per child per day on recurrent costs, compared with one rupee per child per day in Karnataka. As a result, basic facilities are sorely lacking. Lack of money is also the main reason why most schools in Rajasthan continue to serve

to catch the imagination of schoolteachers. Nearly half of them felt that mid-day meals "disrupt classroom processes". And close to one-third of the sample teachers in Chhattisgarh opposed the scheme, compared with only 10 per cent or so in both Karnataka and Rajasthan.

Except for this significant kernel of opposition, mid-day meals are popular in each of the three sample States. A large majority of parents and teachers have positive perceptions of the impact of mid-day meals (Chart 7). Further, there is overwhelming public support for the continuation of the scheme (Chart 8). Among parents, those who advocate discontinuation belong mainly to privileged castes or classes. The tremendous popularity of mid-day meals among disadvantaged sections of the population is one of the strongest arguments for further State involvement in this field.

EPILOGUE IN TAMIL NADU

The field survey in Chhattisgarh, Karnataka and Rajasthan was supplemented with informal visits to nine primary schools in rural Tamil Nadu. Here again, three districts were covered (Kancheepuram, Nagapattinam and Dharmapuri). The basic patterns were much the same everywhere and they are likely to reflect the general situation in the State.

It was a joy to observe the mid-day meal in Tamil Nadu – a living example of what can be achieved when quality safeguards are in place. Each school had a cooking shed and a paid staff of three: a cook, a helper, and an "organiser" who looks after logistics and accounts. All of them were women, and we were impressed with their competence and self-confidence. The organisers claimed that the mid-day meal had been served on time every day of the year since the inception of the scheme in 1982.

The menu also seemed more nourishing than in Chhattisgarh, Rajasthan or even Karnataka. There is rice and *sambhar* every day, but different vegetables are used over the week and there are regular supplements. The portions are adequate for young children, and everywhere we went, pupils clearly relished the whole affair. No one recalled any case of food poisoning since mid-day meals started more than 20 years ago.

In Tamil Nadu, mid-day meals seem to enjoy all-round support from the village

7. Perceptions of teachers and parents

A. Proportion (per cent) of headteachers who report that:		
MDM has boosted pupil enrolment		76
MDM has enhanced pupil interest in studies		69
MDM disrupts classroom processes		34
MDM has met with some opposition in the village		10
B. Proportion (per cent) of parents who feel that:		
	All parents	SC/ST only
Quality of food is satisfactory	86	88
MDM makes it easier to persuade children go to school	76	88
Children look forward to MDM	66	75
MDMs should continue	91	96

MDM: mid-day meal

*As a ratio of valid responses. The response rates were very high (more than 90% in each case), and care was taken to avoid "leading questions".

8. Mid-day meals are popular

Proportion of respondents who favour the continuation of mid-day meals

	Chhattisgarh	Rajasthan	Karnataka	All
Parents	86	94	93	91
Teachers	70	89	92	84
Cooks	88	93	100	94

ghoogri day after day, instead of varying the menu.

Finally, in Chhattisgarh the provision of mid-day meals seems to have been somewhat half-hearted, both financially and politically. The picture emerging from the field survey is one of deficient arrangements and scant monitoring. Casual implementation is likely to be one major reason why mid-day meals in Chhattisgarh have failed

~~3/7/76~~
~~Some~~

A BRIEF ANALYSIS OF SOCIOECONOMIC CONSTRAINTS
TO SOCIAL FORESTRY IN THE PHILIPPINES

by

Lucrecio L. Rebugio¹

INTRODUCTION

Many countries in tropical Asia, including the Philippines, have been actively engaged in the practice of social forestry, hoping to help restore the productivity of their degraded forest lands and promote the welfare of their burgeoning forest population. As practiced in the Philippines today, social forestry takes varied forms. It could be a nationwide government program like the Integrated Social Forestry Program (ISF) (Anonymous, n.d.); a local project managed by a government forestry district (Aguilar, 1982), by a small private foundation (Aguilar, 1982), or by a big private corporation (Hyman, 1983); or a pilot research project implemented by a state institution (Segura, 1983). It could also be a household woodlot or agroforestry production activity.

Like any new undertaking, social forestry has to grapple with initial inherent or externally imposed problems/constraints. This paper analyzes the socioeconomic constraints to the practice of social forestry in the Philippines. The analysis is based on the results of case studies or evaluation of various social forestry projects in the country.

ANALYTICAL FRAMEWORK

In this analysis social forestry is viewed as a resource system² with six functionally interdependent elements; namely, environment, target, goals/objectives, technology, agency/strategy, and impact (Figure 1). One element (environment) is external to the system, and the rest are internal to it.

Functional interdependence among the various elements of the system implies that the status of each can be a constraint to the functioning of the others and to the whole system. As such the

¹ Research Fellow, Environment and Policy Institute, East-West Center, Hawaii, USA; and Associate Professor of Social Forestry, University of the Philippines at Los Baños.

² Resource system is a generic term for any set of resource practices involving three main elements: land (ecosystem), people (social system) and technology.