

EFFECTIVE DELIVERY AND TOTAL FOOD SAFETY MEASURES IN DELHI
A Successful Collaborative Endeavour of Government and NGOs with special reference to Stri Shakti

Rashmi Diwan*

1. INTRODUCTION

The National Capital of Delhi has the largest set up of Mid Day Meal Programme (MDM) in its schools managed by nodal agencies, the Directorate of Education, Municipal Corporation of Delhi (MCD), and New Delhi Municipal Corporation (NDMC). MDM came into operation from July 2003 in a phased manner. In two years time, this programme achieved 100 percent coverage in 2400 schools with 11,34,000 children by July 2005. The impact of mid day meal in the National Capital of Delhi has been greater when today one looks at children radiant with a sense of satisfaction. Nonetheless, the contribution of mid day meal has been of great significance to schools located in deprived and disadvantaged areas. Today no child in the schools of Delhi remains hungry and undernourished. There are no complaints from school authorities like the situation before mid-day meals were introduced, as remarked by one of the Head Master “with empty stomach, how can one expect a child to learn in the classrooms”.

This was the story of millions when a child would get up from bed and walk straight to school since their parents had already left for work. They looked pale and anemic, some of them suffering from visibility loss, which had serious impact on their learning. In Delhi, Mid day Meal Programme of Government of India has been of extreme benefit to most of such children who especially came from families like chhabri walas; carpenters/masons; workers in factories and industries; officials from government offices; servants engaged for house hold chores etc. Some of them came as first generation learners, while others from families not having long traditions but were quite aware of importance of education. Most of them located in unauthorized/ resettlement colonies, J.J. clusters and other small villages within the so called ‘modern’ colonies, survive with more or less the same life style, and education level have remained more or less the same for ages.

* Dr Rashmi Diwan, Associate Professor,
National University of Educational Planning and Administration,
17-B, Sri Aurobindo Marg, New Delhi

There is a visible transition among this class of society from the times when they could not afford a decent square meal a day but more or less have access to schools managed by Delhi Municipal Corporation or State Government. The employment opportunities to the labour class in Delhi might have made a difference in their income levels but still prefer to depend on government-corporation schools rather than unrecognized/recognized private schools simply because of the reason that they can not afford such schools. Even one meal a day in the school *makes a difference* in their lives.

As a National Programme of Nutritional Support to Primary Education, the mid day meal as a savior for the poor in the Capital was launched as a Centrally Sponsored scheme on 15th August 1995 with the objective of encouraging poor, vulnerable and disadvantaged children in government and corporation to attend schools more regularly. In order to facilitate them to concentrate on classroom teaching, serious measures were taken up to supplement their participation by improving their nutritional levels. As a sequel to the central assistance received, today the Mid-day-Meal Scheme is being implemented for all children studying in all the primary schools of Delhi.

2. COVERAGE

So far the coverage of mid day meal programme in Delhi is concerned, all the primary schools have been benefitted with this scheme. When one openly declares this, it is infact a great achievement in itself while looking at the vast area like Delhi. The total number of approx 11.28 lac students have been covered under the Mid day Meal Programme in Delhi, out of which 6,12,292 are girls and 5,15,955 are boys. Delhi, the capital of the nation has a length of 51.90 kms., while the breadth is 48.48 kms. It has an area of 1,483 kms, out of which 685.34 kms. fall in urban areas while 797.66. sq. kms. are in rural areas. The per capita income in Delhi as per the Census 2000-2001 is Rs. 38,864/- which is more than the double of national per capita income. As per the population Census 2001, the total population of Delhi is 1.38 crores, out of which 75.70 lacs are males while the female population was 62.12 lacs. The density of population is 9,294 persons per sq. km. The literacy rate in Delhi is 81.82 per cent. The literacy rate of males and females is 87.37 and 75 percent respectively. As per the 2001 census, Delhi was accorded fifth rank as far as literacy rate is concerned. The sex ratio in Delhi is 821 females for 1000 males.

There are three local administrative agencies, namely, Municipal Corporation of Delhi, New Delhi Municipal Corporation and Delhi Cantonment Board. Schools in Delhi fall under the control of Directorate of Education, Municipal Corporation of Delhi, NDMC and Delhi Cantonment Board. The total number of schools catering to its vast population in Delhi is 4,707. The break up of these schools is as follows:

Table 1: Number of Schools in Delhi

Number of Primary Schools	2,416
Number of Secondary Schools	715
Number of Senior Secondary Schools	1,576

34.03 lac children are enrolled in the schools of Delhi, out of which 17.35 lac are girls which comprise 51 percent of the total enrolment in schools. The drop out rate at primary level of schooling is 8.60 percent which is 9.34 percent in the case of boys while 6.75 percent in the case of girls. Diversity in social categories, social strata, living standards, income levels, family background, educational levels of parents which a child brings to schools indicate to the inherent difficulties in the provision of food to diverse groups of children, and when one observes that almost all primary schools are covered, it is definitely a great achievement. Table 2 presents the coverage of this programme in the primary schools of Delhi.

Table 2: Coverage of MDM in the Schools of Delhi in 2007-08

Name of the Department	No. of Schools	No. of Beneficiaries	No. of Suppliers
GNCT of Delhi	482	1,44,095	26
MCD	1,795	9,67,594	11
NDMC	61	116,558	03
Total	2,338	11,28,247	40

3. PHASES OF IMPLEMENTATION

During the early 1990s era, the mid day meal consisted of food grains only. By 2003 it was felt that cooked meal is a better proposition and therefore in compliance of the orders of the Hon'ble Supreme Court of India, the Govt. of NCT of Delhi decided to start the scheme of providing cooked mid-day-meal to children studying in all schools run/aided by different agencies in a phased manner.

For the first phase, in January 2003, few NGOs/Caterers/Women Empowerment Groups/Parent Teacher Associations/Canteens/Individuals etc were approached. In view of the encouraging response from children, this request was further extended to more in the month of August, 2003

for coverage of more schools under the cooked mid-day-meal programme. These applications were invited zone wise with a view to decentralize the whole process. In the second phase of the scheme which started from September 2003, more schools were covered. The scheme was implemented by MCD and other agencies working in the field of Primary Education in all schools from April, 2004. These providers work on *no profit and no loss* premise. Whatever money saved, is spent for the welfare of Women for associated Self Help Groups.

In 2006, a follow up order from Hon'ble Supreme Court of India was again revisited. As a sequel to the orders, the Ministry of HRD, Department of Elementary Education and Literacy, Government of India, issued further guidelines that as part of the National Programme of Nutritional Support to Primary Education, cooked meal with minimum 450 calories and 12 grams of protein content, may be served to all children studying in classes I-V in all primary and aided schools run by the Directorate of Education, MCD and NDMC. This is being seriously followed in Delhi schools.

The new system became fully operational with the beginning of the new session in July, 2005. Special measures have been taken to provide a balanced meal keeping in view the calorific/Protein Value in every meal. Each child is being served cooked food containing 450 k Cal and 12 gms. of protein. The food contains adequate quantity of micronutrients like Iron, Folic Acid & Vitamin-A etc. similarly in Upper classes cooked food containing 700 k calories and 12 gms. of protein it was decided by the Government shall be made available from the academic session 2008-09. Mid day meal is served to children for approx 190 days. Provision of mid day meal in Delhi schools has been a regular feature except for few interruptions because of disturbances in Delhi, primarily due to drives for sealing and unfriendly weather conditions at times. In the last two years, no incidence of any child falling sick after consuming cooked food has been reported from any school in Delhi.

The scheme of Semi Automated Kitchens by the State Government of Delhi has drastically made a difference in provision of a healthy, “untouched by hands” food offered to children in Delhi schools as compared to what was served a just half a decade ago. The scheme has helped in improving the quality, quantity and monitoring of the programme in the following manner:

- By developing the semi automated kitchen, optimum utilization of manpower and infrastructural facilities has been possible. This scheme has also helped the employment enhancement in the field of Women employment through Self Help Groups.
- In these semis automated kitchens, modern technology is being used for preparing the food such as steam boilers, steam steel jackets, pulverizing machine, poori making machine, grinders etc. Using of modern technology for preparation of food has ensured that the food is served to the children in good hygienic conditions.

- Using of modern technology in kitchens has also reduced the chances of fire accidents in the kitchens as compared to the traditional method of cooking the food.
- These kitchens has eco friendly environment by adopting proper waste management through vermin-composting, oil trap filtration plant and providing smokeless atmosphere in the kitchens.
- The possibility of loss of nutritious values of meal is reduced by using the modern technology of cooking since the food is being cooked in controlled temperature conditions.

This scheme of automated kitchen has also been effective for timely distribution of meal to the children. This scheme has seriously been followed by the NGOs who became partners to government in ensuring good quality food for children.

4. CONTRIBUTION OF NGOS AND OTHER SERVICE PROVIDERS

The NGOs as service providers in Delhi have played greater role in ensuring hygienic and balanced food for children in government schools. A similar study was conducted in the late 1990s to examine the quality of food served in these schools. At that time the situation was pathetic. Wherever the investigator visited, she could find buns, biscuits lying on the floor, which children had struggled to munch but the entire effort had gone in vain. A small incident is shared at the quality of food served during those times.

In a municipal school in Old Delhi, the Principal found that the food for children was stale and smelling. He decided to dump it in a store and after few days was thrown in the garbage. A cow ate the food and was found dead immediately after consuming the meal. An enquiry was placed by the Department of Animal Husbandry to trace the source from where the food came. And it became evident that the food meant for children led to this disaster.

One can well understand what the atrocities the school personnel must have gone through simply because out of fear that the higher authorities might take action against them if food was not served to children, they showed in the records that all children have successfully been fed by the food provided to them.

There could be hundreds of similar experiences to be narrated. In the next phase, the School Principals also became smarter. Whenever their school received shocks concerning quality of food, without taking any risk, they started sending it for lab testing.

But today no such incidents are reported in Delhi schools, at least not to the schools visited by the investigator. There are eight service providers for MCD schools, operating in 13 semi automated kitchens, which serve cooked food to approx. 9.68 lacs children. There are 26 providers for the primary schools of Directorate of Education. The NDMC schools are served with cooked food by three providers. For ensuring the quality of food being served to the

children, the agencies have entrusted the work of providing cooked food by introducing semi automated kitchens to number of NGOs/Service Providers for approx. 11.29 lacs children.

All attention and efforts are taken to ensure that the quality of food supplied, which is fresh and cooked in the hygienic environment and worth eating and enjoying. Administrators and practitioners have become alert and take all necessary measures for timely supply and inspection of food for children. Today the nutrition programme in Delhi has become the most favoured and a successful endeavour, but with strong partnership with NGOs as Service providers. Stri Shakti is one of the NGO which is feeding children in MCD schools in a large scale with complete satisfaction of the stakeholders and consumers.

5. A PROMISING MODEL: THE STRI SHAKTI

As the largest service provider to MCD Schools, Stri Shakti emerged as goddess *Annapurna* to children in MCD schools who were devoid of the luxury of even one balanced meal a day. The MDM programme was launched in the State by this provider from 2003. It introduced its school feeding programme with 10,000 children on a trial basis and today it operating with 70 groups with a wide coverage to 453 schools and 3,17,500 children as beneficiaries to its MDM programme. This in fact is a great achievement for Stri Shakti which began its journey from 10x10 feet room in Pavai, Mumbai in 1992.

Learning from the success of this programme at Mumbai, Department of Education at MCD Headquarters at Delhi requested the agency to take up the charge of provision of food to its schools in the capital. It ensures complete food safety measures and has been maintaining quality of MDM all these years following a systematic approach in all its activities. As a multi stage project, MDM in Delhi, the agency is involved in all activities right from cooking, packing, transportation, to serving food etc. The food is cooked in the most hygienic environment, packed in air tight containers. The menu provided in schools offer healthy, hygienic and variety food.

Stri Shakti carries out its function in well established kitchens at Ranhola, Alipur and Gokulpur villages. The kitchen area covered by each of these is reported in the table below:

Table 3: Kitchen Area and Beneficiaries Managed by Stri Shakti

Location in Villages	Kitchen Area	Total students
Ranhola	47,000 sq.ft.	3,17,000
Alipur	19,000 sq.ft.	
Gokulpur	13,500 sq.ft.	

The kitchen at Ranhola located in the West zone of Delhi has a wide coverage through the sprawling area of 47,000 sq.ft catering to almost 2, 25,000 children. As compared to other NGOs in Delhi providing food to children, Stri Shakti has the largest set up than any other service provider to this sector. The kitchens of Stri Shakti are semi automated as per the norms of Government Departments, equipped with highly sophisticated equipments for kneading the flour, making rotis and puris etc. This agency has well trained staff with all the amenities that includes medical, legal, social and recreational. The NGO is an embodiment of strong team work and enthusiastic workers who carry out the assigned tasks with full dedication.

The Semi Automated Kitchen at Stri Shakti



THE STORAGE PLACE



THE PREPARATORY PHASE

Stri Shakti is one such active partner which follows norms of food safety with security measures in the provision of hygienic cooked food in clean environment. It ensures that each of its worker change the dress before entering the kitchens. The staff also meticulously follow the norms laid by the authorities of Stri Shakti.

Functioning from three centralized kitchens, this NGO has been pioneering in providing mid day meal to a large sector of primary schools in Delhi. The NGO is committed to ISO-9001-2001. A glimpse of images in the subsequent pages will give an idea of how different functions are conducted at Stri Shakti.



PRE-COOKING ARRANGEMENTS



THE PROCESS OF COOKING



TRANSPORTATION IN TROLLIES

The food is cooked in the most hygienic environment, packed in air tight containers, collected in trollies, arranged neatly in rows in the carriers and from here carriers carry food to different school sites. Each activity is organized and roles and responsibilities are clearly defined. There is absolute order without any chaos or confusion at any stage of transportation.



THE POST COOKING PHASE

After the cooking phase, every meal the kitchen is tidily cleaned, moped and washed. Each dish, gadget and utensil used for cooking is properly washed. Same procedure is followed with the utensils received from the schools. These activities do not go un noticed. Each activity which is stictly supervised.





FOOD TESTING IN THE SCHOOL BY AUTHORITIES AND MOTHERS

Mothers form an integral part of food testing in schools. In several MCD schools visited, either two mother on rotation were assigned the duty of testing food or those parents who are visitors to schools are made to taste the food. Authorities from the departments keep a strict vigil on quality of food served to children. Their visits are frequent.



FEEDING THE CHILDREN AT SCHOOL



The variety with which food is provided to schools by Stri Shakti is worth appreciation. This urge is observed when children eagerly wait for the carrier which brings food for them and the sight of it generates lot of energy and enthusiasm among them. This could be easily observed during the visit to MCD schools in Janakpuri and Vishal Enclave. The menu clearly indicates that Stri Shakti does not believe in repeating the same food every day. The details of food are indicated as follows:

Menu

Monday	:	Meetha Dalia
Tuesday	:	Khichri
Wednesday	:	Veg Pulao
Thursday	:	Khichri
Friday	:	Namkeen Dalia
Saturday	:	Black Gram Pulao

Impact

During the visit to MCD schools, it was found that teachers were involved in serving food to children. After food hours, they expressed satisfaction over the quality of meals provided to them. When asked what they would like to eat during break for the next day, a very interesting statement came from a small child, who expressed the desire for “*carrot pudding, rajma and rice.*”

Stri Shakti extends its reach to provision of a variety of food for the age group 0-6, expectant and lactating mothers under Integrated Child Development Scheme. This project covers almost 100 Anganwadis in north, south and central Delhi. The foods provided include weaning food and nutritious balanced diet.

During interactions with Dr Usha Bedi , Chaiperson, Stri Shakti assured that the NGO would always come forward and get associated with Government as partners for the welfare of children as they are highly committed to the Children of the Nation. This is well portrayed in its success with which Stri Shakti managed an extensive area which it covers to cater to the needs of MCD school children. Wherever their services were required, they provided with best of intentions and effort, which is visible in their progress from a small room in Pavai in Mumbai to a large area kitchen in Delhi and is now gearing itself to take up the charge of MDM programme in Gujarat. Stri Shakti works on the premise – *Let the smile be made more enduring for children who enjoy*

food and derive satisfaction out of it----- 100 percent success which Delhi claims today, the greatest contribution came from Stri Shakti which proves that Government-NGO partnerships do work.

6. EXCEPTIONAL ATTENTION BY THE GOVERNMENT DEPARTMENTS

Mid Day Meal Programme has been instrumental in bringing children to schools in large numbers. Every effort of the Government had stressed on creating a special division which looks to this aspect in particular. The organizational arrangements and special efforts of the government for contributing to the success of this programme is explained in forthcoming paragraphs:

6.1. *Organizational Structure for Management of MDM*

The National Programme of Nutritional Support to Primary Education is managed by a special Mid Day Meal Division constituted by the Department of School Education and Literacy, Ministry of Human Resource Development. This division has been entrusted with the task of policy formulation, decision making, monitoring of the programme in the entire country.

The programme in Delhi is managed at the Headquarters of Education Department of Municipal Corporation of Delhi and New Delhi Municipal Corporation as the implementing agencies under the overall guidance of Directorate of Education, Delhi as the nodal agency. The structures as followed in the implementing agencies are highlighted as follows:

Chart 1: Organizational Arrangement for Municipal Corporation Schools

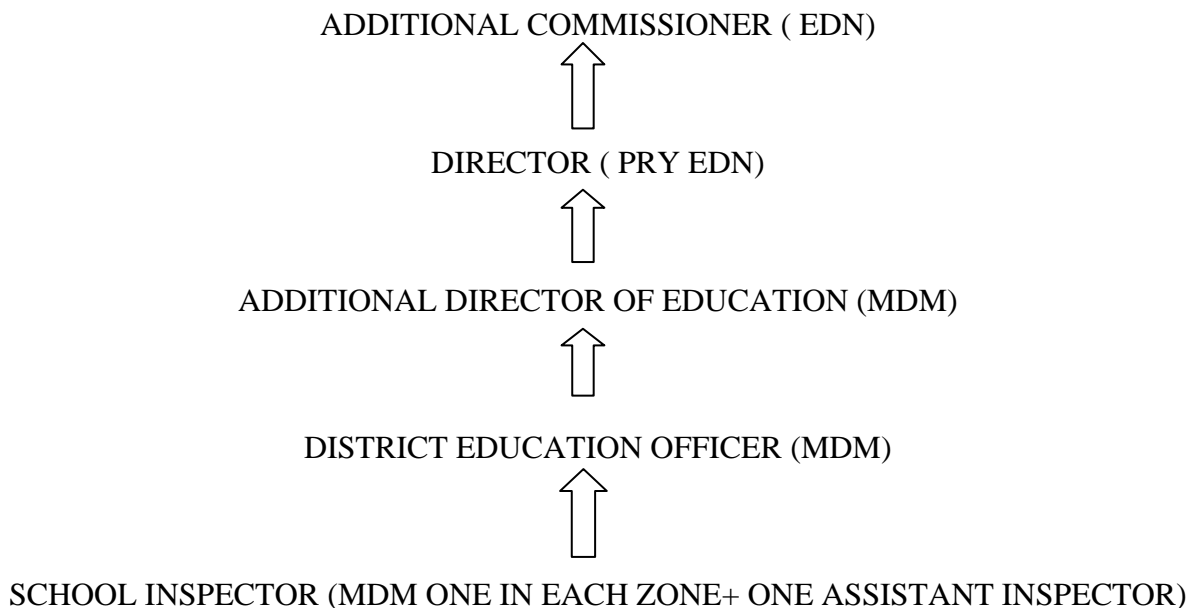
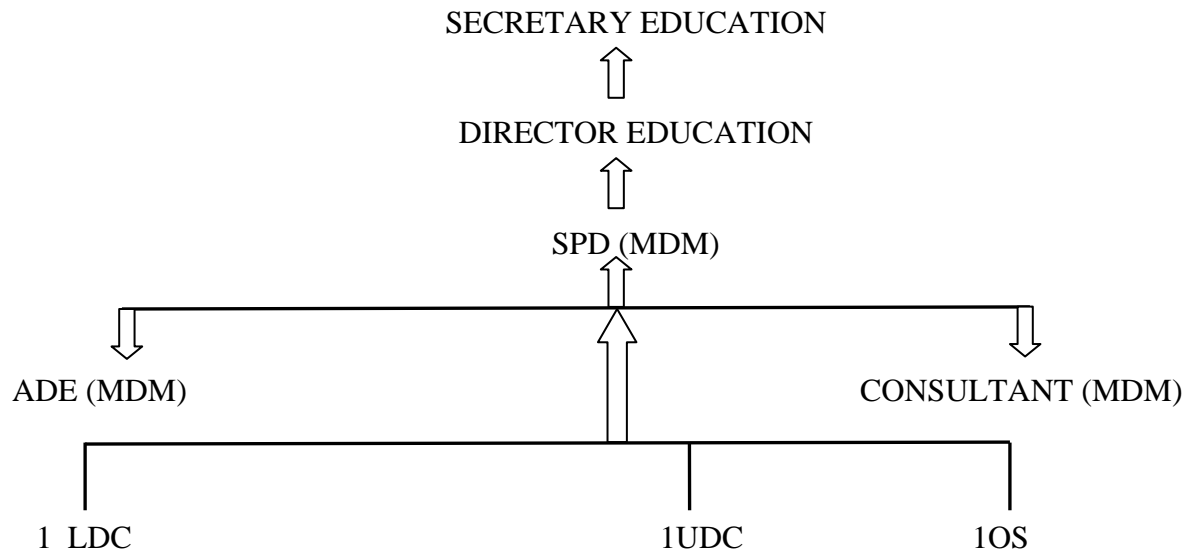


Chart 2: Organizational Structure of MDM Cell in the Directorate of Education, GNCT of Delhi



6.2.Ensuring Timely Delivery of Food Items

The Departments are particular in ensuring the timely supply of food to schools, which is effectively managed by NGOs/service providers/Contractors. The food grains including adequacy of allocation, timeliness of lifting transportation and distribution, and suitability of storage at different levels is very effectively managed in the State by outsourcing the entire work. Food grains lifted from Food Corporation of India godowns are handed over to the authorized representatives of such NGOs/Service Providers/Contractors. The allocation of food gains made for Delhi is sufficient to meet the requirement of mid day meal programme. During the year 2007-08, 737.95 metric tons of wheat and 720.25 metric tons of rice were lifted by December 31, 2007 out of the total allocation of 1323.40 metric tons of wheat and 1323.40 metric tons of rice. The details given in Table 3 shows the sufficiency in the food grains with which the programme is managed in Delhi schools.

Table 4 : Allocation and Lifting of Food Grains (2007-08)
(In Quintals)

Name of Department	Allocation of Food Grains	Good Grains Lifted
GNCT of Delhi	23776.20	22362.40
MCD	168862.73	156343.76
NDMC	3152.48	2420.60
Total	195791.41	181126.76
	(19579.141 metric tons)	(18112.676 metric tons)

6.3 Ensuring Cleanliness

The Heads of Schools as well as NGOs and other suppliers have been issued instructions to maintain cleanliness during preparation, transportation and distribution of meals. The kitchens of the suppliers are visited by Heads of the schools, Education Officers and Mid Day Meal Division. At school level, committee of the following members has been formed to ensure that meals are cooked, served and consumed in a hygienic manner.

- | | |
|--|---------------|
| (i) Head of the School | - Chairperson |
| (ii) Parent Teacher Association/Vidyalaya Kalyan Samiti representative (Preferably mother of student of Primary Class) | - Member |
| (iii) One teacher preferably of Home Science | - Member |
| (iv) Drawing .D.O. of the School | - Member |
| (v) Two mothers of two school children | - Member |

6.4.Timely disbursement of finances

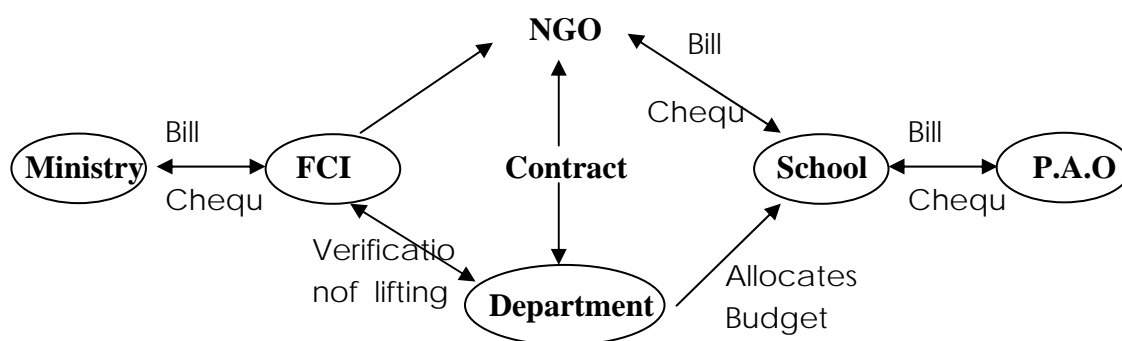
The departments have paid special attention to the distribution of funds to NGOs/Service Providers on time. Proposals for allocation of funds for the implementation of mid day meal programme in Delhi are received from the MCD and NDMC. After scrutiny of the proposals received, an estimate of funds required for the implementation of programme is prepared.

At the beginning of the session, 50 percent of the allocations for MCD and NDMC are released. Subsequently these funds are placed at the disposal of zonal Deputy Education Officers. Bills submitted by the concerned service providers are received in zones where these are processed

and payment is released to the service providers. Remaining funds are released subsequently in favour of MCD and NDMC in two installments.

In the Directorate of Education, funds for the implementation of the programme are placed at the disposal of Principal/HOS of each school. Principals/Heads of schools have been authorized to release payment to the respective service providers for the units of food received in their schools on month to month basis. In case of Government aided schools, funds are placed at the disposal of Deputy Director of Education of the District. Bills verified by the Principals/HOS of aided schools are forwarded to District Deputy Education Officers. After checking of these bills, payments are released in favour of the concerned service provider.

Chart 3: Payment Mechanism to Service Providers



6.5. Monitoring and Evaluation

There are dual mechanisms followed for monitoring and evaluation of the programme. In most of the cases, the third party has been identified for carrying out this function, which is mainly done by Lady Irwin College, Institute of Home Economics and Centre for Policy Research. At the state level, school level committees have been constituted, with mothers as a mandatory member of the committee entrusted to examine each and every aspect of quality of food provided and members from *Vidyalaya Kalyan Samiti*.

The School Committee although tastes the food before it is served to students, but as a regular feature, in several schools, every day two mothers visit the school to taste the food served to the children. This move came when as per the decision of the Hon'ble Minister of HRD, New Delhi, mothers of school children have been involved on rotation basis to monitor and supervise the feeding programme of children. This has following advantages:

- (i) This leads to an independent assessment of quality and quantity of food
- (ii) Mothers oversee the distribution, quantity and quality of food being served since they have a sense of responsibility and belongings to the school system.
- (iii) Improvements/Strengthening of the programme by incorporating suggestions from mothers.

6.6. FeedBack Mechanism

Under Right to Information Act 2006, the guidelines of National Programme of Nutritional Support to Primary Education (NP-NSPE) were revised in Sept. 2006. it was recommended that at the level of each school, information regarding MDM Programme should be displayed which inter alia include the number of children getting MDM, daily menu, the name and address of the NGO/Service Provider supplying cooked food in the school, the composition of the school level committee, the Roaster of mothers of children studying in the school etc. A complaint/suggestion register is maintained at level of each school and in each kitchen in which complains/suggestions regarding the implementation of the scheme can be recorded. Department ensures follow up action on the suggestions/complaints recorded in the complaint/suggestion registers.

7. RECENT INITIATIVES

The Core Group constituted for Mid Day Meal in its meeting held in January 2008 has approved the following menu for Primary classes.

Wheat based items

- (a) Atta & Besan Puri with Aaloo
- (b) Atta/Suji Halwa
- (c) Poori with Chhole

Rice based items

- (a) Rice Chhole
- (b) Rice with Sambhar/Daal
- (c) Rice with Kadhi

There are certain conditions which schools are expected to follow for ensuring food supplies:

- (i) No item shall be allowed to be repeated in a week.
- (ii) Menu shall be strictly adhered to by the Service providers
- (iii) The meal shall contain minimum 450 calories and 12 gms protein.
- (iv) Double Fortified Salt shall be used by the Service Providers for cooking food.
- (v) Green leafy vegetables shall be added to the meal to be served to the children.

8. The Concluding observations

In this entire renaissance, the MDM in Delhi is considered to be one of the most successful practices in India. One underlying fact is coming clearly in this endeavour that *mother* has emerged as a strong mediator in ensuring quality of food for the children. On the whole, the complementarities between the government and NGOs have made Delhi schools a place of attraction for children who could not afford a decent meal in their homes. Similarly the Mid day meal programme with special attention to the cleanliness of cooked food has served an added advantage of not being thrown out or children falling ill because of stale or unhealthy way of cooking. At the same time, variety in food served everyday is guaranteed with complete satisfaction of the parents who come to school to taste and check the quality of the food served to their wards.

The systematic procedures laid for effective planning and management of the Programme on the part of Department of Education is worth appreciation. But one can not forget the contribution of Stri Shakti, one of the leading dedicated NGO whose tireless efforts have made it possible for a vast coverage of Delhi schools for feeding its children and the success is clearly visible when one proudly declares that today the programme is feeding children in almost 100 percent schools and without any complaint from the beneficiaries or schools.

A greater challenge is ahead with the announcement by our Prime Minister, Mr Manmohan Singh ji, on August 15, 2008 that learning from the success of this programme in primary schools, the Mid day meal will be extended to Secondary Schools in Delhi. This direction requires greater preparation and a well thought out design which plans for making Government-NGO partnerships more enduring to make Mid Day Meal Programme a success in Secondary Schools of Delhi.