MID DAY MEALS: A DETAILED STUDY OF INDIAN STATES

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Abstract: With higher degree of school going children suffering from undernourishment, Mid Day Meal Programme (MDM) was launched in India in 1995. Thus the research paper focuses on MDM Scheme in India. There is existence of under prevailing inequality in availing of Mid Day Meal Programme across states and within states and among income groups and social groups. Therefore, the study aims at addressing these issues with the evidences from unit level data of National Sample Survey Office 64th Round. The research focuses upon relationship between Mid Day Meal and school infrastructure. It even studies inequality in availing of MDM in rural and urban areas, among boys and girls, among income and social group.

IndexTerms - Mid Day Meal, Social groups, Infrastructure, Elementary Education.

I. INTRODUCTION

The situation of children in India is very concerning for planners of our country. Presently nearly half of the Indian children are undernourished\(^1\). This is rightly called as “Silent Emergency” for children by Khera (2006). This makes primary education and basic health facilities as fundamental challenges of human development in India (Afridi,2005). Realizing the relationship between education and health, Government of India has launched the National Programme of Nutritional Support to Primary Education or the Mid Day Meal (MDM) Schemes in 1995. The MDM scheme was launched with an objective of improving nutritional status of children and reducing classroom hunger. Apart from this it also includes promoting school participation (in terms of enrolment, attendance and retention), fostering social inequality, enhancing caste and gender equity with particular attention to children belonging to disadvantaged groups (see fig 1.1).

The MDM scheme is for all children of primary and upper primary classes attending Govt., Govt. aided and local body schools and Education Guarantee Scheme (EGS) / Alternative Innovative Education (AIE) centers including madarasas / maqtabs (by MHRD, Govt of India). It covered 87 percent children in rural and 12 per cent in urban area in 2007-08 of the total children who were availing MDM in India (NSSO 2007-08).

Thus the research paper focuses on MDM Scheme in India. There is existence of under prevailing inequality in availing of Mid Day Meal Programme across states and within states and among income groups and social groups. Therefore, study aims at addressing these issues with the evidences from NSSO 64th Round.
II. LITERATURE REVIEW

2.1 Introduction and History

On 15th August 1995, the government of India launched the National Programme of Nutritional Support to Primary Education (NP-NSPE) as a new Centrally Sponsored Scheme. It was started with a view to enhance enrolment, retention and attendance and simultaneously improving nutritional level among children. Initially in 1995 it was introduced in 2408 blocks in the country and by 1997-98 the NP-NSPE was introduced in all blocks. Under this programme, cooked mid day meals were to be introduced in all government, government aided and local body schools for children at primary level. However, in the first six years after the scheme was launched (until 2001), most states failed in putting required arrangements and thus provided monthly dry ration based on the attendance of the students (Khera, 2006).

The Supreme Court gave the states a wake-up call on November 28, 2001 directing the state governments/union territories to implement the mid-day meal scheme by providing every child in every government and government- assisted primary school with a prepared mid - day meal with a minimum content of 300 calories and 8-12 grams of proteins each day of school for a minimum of 200 days within six months. Although few states introduced cooked meals before the Supreme Court’s initial deadline of February 2002. The guidelines for MDM were revised by government of India in 2004. According to these new guidelines, MDM was fully implemented in 20 states and all seven union territories and partially in the remaining eight states (Assam, Bihar, Goa, Jammu & Kashmir, Punjab, Uttar Pradesh and West Bengal). Also provision of MDM during summer vacation in drought affected areas was introduced in 2004. In October 2007, the scheme was further revised to cover children in upper primary. The programme will be extended to all areas across the country from 2008-09. The calorific value of a mid day meal at upper primary stage has been fixed at a minimum of 700 calories and 20 grams of proteins by providing 150 grams of food grains (rice/wheat) per child/school day.

Major issues highlighted by the literature are:

2.2 Enrolment, Retention and Attendance

Many literatures suggest that the MDM scheme has led to substantial increase in the enrolment, retention and attendance of children. Many researches on primary education in India suggest that mid-day meals help in enhancing school participation especially among young girls. Study of Dreze and Kingdon (2001) estimated that the provision of MDM in the local school is associated with a 50 per cent reduction in the proportion of girls who are out of school. In another instance of CES survey undertaken in 2003 in Chhattisgarh, Rajasthan and Karnataka it was found that mid-day meals have major impact on school participation of girls. The survey too suggests that school enrolment in the sample villages shot up after mid-day meals were introduced. It also points significant improvement in daily attendance. Many parents reported that MDM had made it much easier for them to send their children to school in morning. Subsequently it have improved retention capacity.

2.3 Nutritional and Health

One of the objectives of MDM is to address classroom hunger and provide sufficient nutrition to the children. There are many students who go empty stomach to school and could not concentrate on study thus MDM provide them nutrition and help them to concentrate on classroom activities. Even in absence of MDM students go to their home for lunch and never return (Dreze and Goyal, 2003). As it is pointed out by Dreze (2004), poor learning abilities and greater exposure to disease are directly related to hunger and under nutrition. A study by Ramachandran (2003) emphasis that children assured their name to be registered in schools as proof of their official enrolment. The absenteeism in this type of condition is basically due to poor economic condition.

2.4 Meal Type: Package meal Vs Cooked meal

This is the recent debate on the issue of giving pre-cooked food or cooked meal. It came to light in the Rajya Sabha on a reported move by the Women and Child Development Ministry to provide pre-cooked food in 2008. It has been noticed that Ms. Renuka Chowdhury, the union Minister of State for Women and Child Development has been keen on public- private partnership for delivering ready-to-eat packaged food in schools instead of cooked meals. It is pointed out that in several states where packaged food was being given, supplies got centralised in the hands of large contractors who misused the scheme for their advantage. The Centre of Social Medicine and Community Health at JNU admitted that recent debates about introducing packaged foods is driven by business interests and lobbies than any serious concern about addressing poverty, hunger and poor health of majority children and this is unacceptable and goes against fundamental rights of children.

Baru, Dasguta, Deshpande and Mohanty (2008) believed that the proposal to replace cooked meals in the MDM with packaged food and biscuits will undermine the gains achieved towards the implementation of programmes. They admit that dry ration and biscuits are often not consumed by children and though they did push up enrolment it had little impact on attendance and retention levels. The evidence suggests that children often take the dry foods home and may not eat it later and in context of poverty it often get shared among family members.

And of course, midday meals i.e. cooked meal prevent “classroom hunger” which dry rations or package meal may not do. Finally, midday meals have various “socialisation” roles, mentioned earlier which cannot be performed by dry rations (Dreze,2005, MDM Primer).

2.5 Social and Educational

Another major objective of MDM other than promoting attendance and nutrition is its socialization value. MDM can play a role in erosion of caste prejudices and class inequality by inculcating good practices among children like sitting together and sharing of meal. Inspite of these issues there are reports of caste discrimination in MDM. According to Thorat and Lee (2004) and Khera (2006), two types of caste discrimination have been reported: one discrimination against children on the basis of their caste and second, discrimination against appointment of cooks. Evidences in support of caste discrimination are found in works of Dreze and S Vivek (2002), Dreze and Goyal (2003), Thorat and Lee (2005), Khera (2006). The study of Thorat and Lee (2005) is one of the best which address caste discrimination against dalits. They find out that MDM for dalit children is hampered as most meals are served in separate catering facilities. The access for dalit children depends upon caste relations in the village or region. There were also instances of discrimination in form of segregated seating, different food served to different castes, giving insufficient food to dalits, not allowed to drink water by themselves. Also there is strong opposition to dalit cooks. Exclusion is practised by favouring hiring of dominant caste cooks, sending children with packed lunches or forbidding children to eat prepared by dalit cooks. Also some dominant caste
parents react to hiring and keeping of a dalit cook by withdrawing their children from schools and sometime admitting them to different school where cook is not dalit.

2.6 Infrastructure
MDM may lead to disruption of classroom processes where there is lack of infrastructure, therefore basic infrastructure is needed for its implementation. Infrastructure includes water supply, separate kitchen, cooking utensils, plates, fuel, storage facility, adequate staff, monitoring and supervision authorities. According to a study conducted by Dreze and Goyal in Bamhu, the mid-day meal there is prepared in a soot-covered classroom using a makeshift stove. The cook struggles with inadequate utensils and takes help from young children for cutting the vegetables and cleaning the rice. According to the teacher, no teaching takes place after lunch as the classroom turns filthy. In some schools abandoned room in the school building is used for preparing the meals. Even in some cases cooking was done in classroom which distracted students from their studies.

2.7 Quality and Quantity
The issue of quality of the meal is foremost among the issues that need to be tackled. This in turn depends upon the norms that are set by the government as well as on the conditions in which meal is prepared. In lack of proper infrastructure quality of meal tend to deteriorate. The study of Afridi (2005) points that quality of daliya programme was poor in study area of Madhya Pradesh. Also the quantity of the meal was small. Normally all schools were mandate to provide sweet daliya on alternate school days. But there were evidences of panchayat cutting costs by serving sweet daliya once a week or a few days in a month. He found out that new initiative of Suruchi Bhoozan was providing children with much calories and was therefore more popular among children. Opposite to this study, study of Dreze and Goyal (2003) conducted in Chhattisgarh, Rajasthan and Karnataka found out that the food supplied were adequate for young children. According to study Karnataka provided the most varied and nutritious menu while menu of Rajasthan was same and boring for children. Some poor household in Karnataka termed MDM as ‘festive food’ for their children. Areas vary on issue of quality and quantity of MDM. Greater attention should be given to quality aspect of programme for maintaining attendance and providing nutrition.

III. OBJECTIVE
Following are the objectives studied in the paper:
- To study how infrastructure facilities are related with each other and to Mid Day Meal
- To study inequality in availing of MDM in rural and urban areas, among boys and girls, among income and social group.

IV. DATABASE
The study is based on two secondary data sources:
- State Reports Card, 2007-08, NUEPA
- Education in India: 2007-08, Participation and Expenditure, NSS 64th Round, July 2007- June 2008, Report No. 532(64/25.2/1)

V. METHODOLOGY
Following have been calculated using IBM SPSS software
- Infrastructure Index using Principal Component Analysis
- Modified Sopher’s Index (Reference category is ‘YES’ i.e. percent children availing MDM)
- Karl Pearson linear correlation method
- Binary Logistic Regression

NOTE: The five income quintiles are formed by ranking the households on the basis of their Monthly Per Capita Expenditure with 20 per cent population in each group. ‘Class I’ refers to the poorest 20 per cent of the population and ‘Class V’ refers to the richest 20 per cent of the population. Class wise classification of income groups are:
  - MPCE Class I : Below Rs 416.60
  - MPCE Class II : Rs 416.70-Rs 541.20
  - MPCE Class III : Rs 541.30-Rs 700.00
  - MPCE Class IV : Rs 700.10-Rs 1000.00
  - MPCE Class V : More than Rs 1000.00

- Study is based on following:
VI. DISCUSSION

The body of the research paper has been organized in the following manner:

1. Infrastructure facilities
2. Spatial inequality in access of Mid Day Meal
   - Rural and Urban Differences
   - Gender Differences
   - Income Differences
   - Social Group Differences
3. Binary Logistic Regression Analysis

6.1. Infrastructure Facilities

MDM may lead to disruption of classroom processes when there is lack of infrastructure, therefore basic infrastructure is needed for its implementation. Infrastructure includes water supply, separate kitchen, cooking utensils, plates, fuel, storage facility, adequate staff, monitoring and supervision authorities. Therefore in this part of the paper emphasis is laid on inter relationship among infrastructure facilities and Mid Day Meal.

For this indicator of Infrastructure Facility which affects the number of children availing MDM are used for constructing Correlation Matrix and Infrastructure Index. They are:

Negative Indicators
- Percentage of single classroom schools
- Percentage of single teacher schools
- Percentage of schools with no building
- Percentage school with no drinking water facility (Positive indicator for correlation matrix)
- Percentage school with no kitchen shed (Positive indicator for correlation matrix)

**Availing MDM only used for correlation matrix**

Table 6.1.1: Correlation matrix showing relationship among indicators and with MDM

<table>
<thead>
<tr>
<th></th>
<th>Availing MDM</th>
<th>Single classroom school</th>
<th>Single teacher school</th>
<th>Drinking water</th>
<th>School with kitchen shed</th>
<th>Schools with no building</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availing MDM</td>
<td>1</td>
<td>-0.34</td>
<td>-0.18</td>
<td>0.20</td>
<td>0.48</td>
<td>-0.05</td>
</tr>
<tr>
<td>Single classroom</td>
<td>-0.34</td>
<td>1</td>
<td>0.58</td>
<td>-0.62</td>
<td>-0.05</td>
<td>0.01</td>
</tr>
<tr>
<td>school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single teacher</td>
<td>-0.18</td>
<td>0.58</td>
<td>1</td>
<td>-0.45</td>
<td>0.03</td>
<td>-0.06</td>
</tr>
<tr>
<td>school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drinking water</td>
<td>0.20</td>
<td>-0.62</td>
<td>-0.45</td>
<td>1</td>
<td>0.13</td>
<td>-0.43</td>
</tr>
<tr>
<td>School with kitchen</td>
<td>0.48</td>
<td>-0.05</td>
<td>0.03</td>
<td>0.13</td>
<td>1</td>
<td>-0.04</td>
</tr>
<tr>
<td>shed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schools with no</td>
<td>-0.05</td>
<td>0.01</td>
<td>-0.06</td>
<td>-0.43</td>
<td>-0.04</td>
<td>1</td>
</tr>
<tr>
<td>building</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*NOTE: Colored values are significant at one percent*

Table 6.1.1 founds that school with kitchen shed have positive and significant correlation with MDM. But increase in number of kitchen shed is result of implementation MDM programme at state level. For successful carrying out programme Government of India sanctioned funds to states for establishing kitchen shed. Single classroom school have weak and negative correlation with MDM which was found to be insignificant. This may mean that MDM availing by children became less where there is occurrence of single class room as this lead to multi dimension problems (as discussed earlier). Single teacher school too have weak and negative relation.

When relationship among indicators is studied, it showed that single classroom school is positively and strongly related with single teacher school and negatively and strongly related with drinking water facility. Even single teacher school is negatively and strongly related to drinking water facility. Even school with no building is found to be negatively related with drinking water facility.
INFRASTRUCTURE INDEX

Infrastructure index is calculated to study relation between children availing MDM and infrastructure available. This is basically performed to see, if the states with better infrastructure facilities have more children availing MDM or not.

Map 6.1.1: Infrastructure Index

*Highest the value of index, worst is the state and vice versa

Best infrastructure facilities are observed in states of Tamil Nadu, Kerala, Gujarat, Haryana and Uttar Pradesh from Map 6.1.1. While moderate infrastructure facilities are at Punjab, Himachal Pradesh, Uttarakhand, Madhya Pradesh and Maharashtra. States with worst infrastructure facilities are Bihar, Jharkhand, Chhattisgarh, Rajasthan and Assam. Surprisingly developed states like Karnataka and Andhra Pradesh have worst infrastructure facilities. In most of the indicators they even lag behind Bihar, Jharkhand and Chhattisgarh. Schools with single classroom and single teacher is quiet high among this two states.

States with good infrastructure and high percent of children availing MDM are Kerala, Tamil Nadu, Gujarat, Madhya Pradesh. While states with poor infrastructure facility like Bihar, Jharkhand, Chhattisgarh, Andhra, Tamil Nadu and Rajasthan have medium to high percent of children availing MDM. Even Punjab with good infrastructure facility have low percent of children availing MDM. Even the correlation between Infrastructure Index and MDM is found to be weak and negative i.e. -3.1. This proves there is no direct and significant relation between infrastructure facilities and MDM.

6.2. Spatial inequality in access of MDM

At all India level 68 percent students are availing MDM. There are sharp contrasts among states on the issue of children availing MDM. Some states like Tamil Nadu, Karnataka, Kerala and Gujarat have gone beyond compliance with Supreme court orders on MDM. The achievements among these states is due to the reason that MDM was initiated before the national scheme was launched in 1995 (Dreze and Goyal, 2003, Khera, 2006). While Tamil Nadu’s scheme has the longest history, in 1956 meals were provided to two lakh children. Rajasthan is also in the category of best performing states. As in Rajasthan, the state government took an early decision to implement the Supreme Court order of November 2001. In fact, it was the first state to do so, among those states where no mid day meal scheme was in place at that time. To these Dreze and Goyal (2003) admit existence of a high level monitoring committee which closely supervised the programme from the beginning, and the progress of MDM was also watched by the right to food campaign in case of Rajasthan.

<table>
<thead>
<tr>
<th>States with full implementation of MDM in 2003 (Dreze,Goyal)</th>
<th>Percent children availing MDM in 2007-08 (NSSO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tamil Nadu</td>
<td>90.6</td>
</tr>
<tr>
<td>Karnataka</td>
<td>90.1</td>
</tr>
<tr>
<td>Kerala</td>
<td>87.9</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>78.0</td>
</tr>
<tr>
<td>Gujarat</td>
<td>76.4</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>73.6</td>
</tr>
<tr>
<td>Chhattisgarh</td>
<td>70.1</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>69.2</td>
</tr>
</tbody>
</table>
This becomes clearer from the above Table 6.2.1, which explains performance of states in terms of percent children availing MDM in 2007-08. These states have high percentage of children availing MDM. Therefore somehow history of implementation of MDM matters in performance of states. As early start helps states to build up proper governance, infrastructure and other needs. The study of Dreze and Goyal (2003) points out that states like Punjab, Uttar Pradesh, Bihar and Jharkhand haven’t implemented MDM until 2003 (Map 6.2.1.). Therefore it can be a reason for their falling out in the race of better performing states.

Map 6.2.1.: MDM scheme implementation across India, 2003
Source: Drèze and Goyal (2003)

6.2.1. Rural and urban differences
MDM covers more than 85 percent children in rural India. In rural area more than 70 percent student are availing MDM while in urban area 51 percent are availing MDM. MDM has become a success story in many rural areas of India. While pattern of children not availing MDM is also studied for locating the children who are not availing MDM in India. States were found to behave similar to all India statistics. As In rural India only Goa, Punjab and Manipur have children not availing MDM more than 60 percent. While in urban India this category of states witness increase in number. New addition are of Uttar Pradesh, Himachal, Jammu & Kashmir and most of the North Eastern states. Even states in 40 to 60 percent category increased. Overall it was found in rural area less student were not availing while in urban area more student are not availing MDM. Even urban area have probability half of rural areas for children availing MDM. (see binary logistic regression, model, Table 3.1 and Table 3.2).

6.2.2. Gender differences
Many literatures suggest that the MDM scheme has led to substantial increase in the enrolment, retention and attendance of children. Many researches on primary education in India suggest that mid-day meals help in enhancing school participation especially among young girls. Study of Dreze and Kingdon (2001) estimated that the provision of MDM in the local school is associated with a 50 percent reduction in the proportion of girls who are out of school. In another instance of CES survey undertaken in 2003 in Chhattisgarh, Rajasthan and Karnataka it was found that mid-day meals have major impact on school participation of girls. The survey too suggests that school enrolment in the sample villages shot up after mid-day meals were introduced. It also points significant improvement in daily attendance of girls.
MDM is a government programme in which discrimination and disparity against girl student is believed not to be practiced and thus it act as a “PUBLIC CHECK”. At household level discrimination can be performed among girls and boys in terms of providing food. Still there are households in India where it is believed that girls require less nutrition than boy, therefore they are given less food. But when there is case of public education no discrimination is practiced among girls and boys. This form part of “SHAME CULTURE”. Regression value shows that girls have 1.12 more probability than boys in availing MDM.

While when Index of Inequality was constructed for the study, it shows little variation among states. All states except Jharkhand have similar pattern of inequality. Even 69 percent girls were found to avail MDM while 67 percent boys were found to avail MDM.

6.2.3. Income differences
Access of MDM depends upon attendance. MDM act like incentive for drawing more children into school and keep them for longer years in schools thereby impacting their educational attainment (Viswanathan, 2006). Lower level of educational attainment and poor nutritional status are always linked with poverty. The aim of MDM is to increase the enrolment and attendance by providing nutritional support to children belonging to poorer households. It is expected that children from poorer households are likely to perform better in educational attainment if they have access to school meals compared to those who do not.

![Figure 6.2.3.1: Children availing MDM by income quintiles](image)

MDM was started with objective of covering maximum economically deprived students. And it is found that it has fulfilled its objective as about 70 percent children from low income (MPCE I & MPCE II) are found to be availing MDM (Fig. 6.2.3.1). While it is low among high income group.
For more maps refer Annexure

Even regression value proves that highest income group has least probability of availing MDM in comparison with lowest income group. While low and middle income group (MPCE II & III) have equal probability of availing MDM to least income group (MPCE I). Study of inequality in availability of MDM have been studied for two income groups:

- Low income group (MPCE I & MPCE II): Karnataka, Kerala, Tamil Nadu and Gujarat have least number of children not availing MDM under this category. It proves government of these states are efficient enough to deliver services. While only in Nagaland and Goa more children are found to be not availing MDM in comparison to availing category. Central India have similar picture.

- High Income group (MPCE IV & MPCE V): For student of high income group it is presumed that they will avail MDM least. As they are economically sound, so they bring their own lunch pack even if school have MDM facility. For this group Dadra & Nagar Haveli have highest number of children availing MDM thus it has highest value in MSI. While it is found in states of Jammu & Kashmir, Punjab, Uttar Pradesh, Chhattisgarh, Maharashtra, West Bengal and North eastern states more children of this category were not availing MDM proving the above mentioned hypothesis [see regression tables 3.1 and 3.2] In Karnataka, Kerala and Tamil Nadu high number of children were found to avail MDM. This is due to good governance and good quality of MDM.

6.2.4. Social differences

Inequality across social group is studied to see participation among them. Special emphasis is given on Dalits or Scheduled Castes in this section. Dalits in India are considered to be untouchable. Government of India has made practice of untouchability a punishable offence but still it is practiced in most of the rural areas in India. Still in rural areas dominant caste Hindu behave on their understanding of ‘Purity and Pollution’. Therefore it also impact MDM programme in the areas where it is practised.

Percent availability of MDM by Dalits shows their social acceptance in the society. As high percentage of availing of MDM by Dalits shows that caste practices are not rigid and Dalit children are allowed to avail MDM. While their low percentage represent presence of discrimination in the society.

At all India level, 70 percent Dalits to their total population are found availing MDM while Non Dalits (including STs, OBC and General) it is 72 percent. So there is not much differences among the two. Even the probability of availing MDM of Dalit is found to be 0.99 in comparison with Non Dalits. This shows no sign of discrimination at all India level. Study is not conducted separately for rural and urban, this limit the study. As picture of discrimination may vary at rural level as caste prejudice still prevails in rural areas.

Figure 6.2.4.1 and fig. 6.2.4.2. shows that at state level, in Punjab, Manipur, Arunachal and Assam both Dalit and Non Dalits are found to avail MDM less. While in Karnataka, Tamil Nadu, Kerala, Rajasthan and Madhya Pradesh more Dalits and Non Dalits were found to avail MDM.
6.3. Binary Logistic Regression

Two models of binary logistic regression are created for the study:

<table>
<thead>
<tr>
<th>Table 6.3.1: Binary Logistic Regression Model 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECTOR</td>
</tr>
<tr>
<td>SEX</td>
</tr>
<tr>
<td>INCOME QUINTILE</td>
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<td></td>
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<tr>
<td></td>
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<tr>
<td>RELIGION</td>
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<td></td>
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<tr>
<td>SOCIAL GROUPS</td>
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<td></td>
</tr>
</tbody>
</table>
Table 6.3.1, shows probability of children availing MDM in urban area is less than rural area. While probability of girls availing MDM is more than boys. Probability of MPCE V availing MDM is least while it’s high in low and medium income groups. Probability of Muslim is more than Hindu. Probability of SCs availing MDM is more than any other social group but it is more or less equal to OBC.

Table 6.3.2: Binary Logistic Regression Model 2

<table>
<thead>
<tr>
<th>Income Quintile</th>
<th>MPCE I &amp; II (Low Income)</th>
<th>MPCE IV &amp; V (High income)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCIAL GROUPS</td>
<td>Non SCs</td>
<td>0.58</td>
</tr>
<tr>
<td></td>
<td>SCs</td>
<td>0.99</td>
</tr>
<tr>
<td></td>
<td>CONSTANT</td>
<td>2.898</td>
</tr>
</tbody>
</table>

The second model from table 6.3.2, is constructed basically to see probability of Dalits in comparison to Non Dalit and probability of children of high income group in comparison with low income group. Probability of Dalit is found to be more or less equal to probability of Non Dalits in availing of MDM. While probability of high income group is found to be low.

VII. CONCLUSION

From the study it is concluded that, there is no direct and significant relation between infrastructure facilities and MDM. Spatial inequality is observed in terms of children availing MDM. But there was no sign of inequality or discrimination practice against girls. Rather MDM has boosted girls’ enrolment and attendance. It was even found MDM is more popular in rural India. The prevailing inequality in availing of MDM is mostly work of space. Therefore, “it matters where you live”. This is because governance issues really have upper hand in success and failure of MDM in any state or region. Caste has small roles to play in the programme at all India level. The picture may vary at rural and urban level for which study is not conducted. But class wise variation in availability of MDM is observed. High income group have low probability of availing MDM in comparison with low income group.

ENDNOTES

[1] Proved in the study of Baru, Dasgupta, Deshpande, Mohanty (2008) on study of three rounds of NFHS. According to the study proportion of children in the wasted category is alarming and should be recognised as a public health disaster. Also Khera (2006).


[3] Dreze and Goyal (2003), study is based on the CES survey which took place in three states: Chhattisgarh, Rajasthan and Karnataka. These were states where MDM schemes had been had been introduced in 2002 as a response to Supreme Court orders.


[8] Afridi (2005), case of Education Guarantee Schemes Schools, where there is no school building and classes are held in either cook’s or teacher’s house. Firewood used in preparing meal create lot of smoke in the classrooms which distracted students from studies.

[9] Mentioned in work of Dreze and Goyal (2003). According to a study conducted by Dreze and Goyal (2003) in Bamhu, the mid-day meal there is prepared in a soot-covered classroom using a makeshift stove. The cook struggles with inadequate utensils and takes help from young children for cutting the vegetables and cleaning the rice. According to the teacher, no teaching takes place after lunch as the classroom turns filthy.


[11] Dreze and Goyal (2003), study is based on the CES survey which took place in three states: Chhattisgarh, Rajasthan and Karnataka. These were states where MDM schemes had been had been introduced in 2002 as a response to Supreme Court orders.

[12] Study of Dreze and Goyal (2003) conducted in Chhattisgarh, Rajasthan and Karnataka concluded that the food supplied were adequate for young children. According to study Karnataka provided the most varied and nutritious menu while menu of Rajasthan was same and boring for children. Some poor household in Karnataka termed MDM as ‘festival food’ for their children. States vary on issue of quality and quantity of MDM. Therefore, greater attention should be given to quality aspect of programme for maintaining attendance and providing nutrition.

[13] According to Thorat and Lee (2004) and Khera (2006), two types of caste discrimination have been reported: one discrimination against children on the basis of their caste and second, discrimination against appointment of cooks. Other evidences in support of caste discrimination are found in works of Dreze and S Vivek (2002), Dreze and Goyal (2003), Thorat and Lee (2005), Khera (2006).

Thorat and Lee (2005), study is based on survey conducted by Indian Institute of Dalit Studies (IIDS), among dalit communities of 531 villages in 30 districts in five states Rajasthan, Uttar Pradesh, Bihar, Andhra Pradesh and Tamil Nadu in 2003. The study addresses caste discrimination against Dalits. They find out that MDM for dalit children is hampered as most meals are served in dominant caste localities. The access for dalit children depends upon caste relations in the village or region. There were also instances of discrimination in form of segregated seating; different food served to different castes, giving insufficient food to Dalits, not allowed to drink water by themselves. Also there is strong opposition to dalit cooks. Exclusion is practiced by favoring hiring of dominant caste cooks, sending children with packed lunches or forbidding children to eat prepared by dalit cooks. Also some dominant caste parents react to hiring and keeping of a dalit cook by withdrawing their children from schools and sometime admitting them to different school where cook is not dalit.
REFERENCES


WEBSITE

[17] www.righttofoodindia.org

Annexure