

## CONTENTS

SECTION	PAGE
Acknowledgements	2
List of abbreviations	4
Executive Summary	5
Composition of the Joint Review Mission Team	6-7
<b>Introduction</b>	8-9
Brief profile of Manipur	10-18
Methodology	19
Observations	20-42
Nutritional Assessment	43-53
Recommendations	54-57
Photographs	--
<b>ANNEXURE</b>	---

## **Acknowledgements**

The Mission would like to thank the Government of Manipur for all the support rendered in organising the logistics as well as in providing much required programmatic information that facilitated the Mission meet the terms of reference developed by the Government of India.

The Mission also values the hospitality and support extended by the Department of Education from the Principal Secretary Primary Education, Director- School Education, school teachers; the state office of the Mid May Meals to the MDM kitchen staff in schools; the SMC members of the schools in districts of Imphal West and Senapati and finally, the student and the village community more importantly.

The team has strived to capture the entire range of discussions and observations at various levels with all the officials and key stakeholders earnestly. It sincerely hopes that the recommendations that have emerged through interactions with the officials, experts, implementers and the stakeholders – children, would be of help to the State Government in strengthening the implementation of the Mid–Day Meal Scheme and ensure the right to nutritional food security of school going children of Manipur.

The JRM team

31<sup>st</sup> July, 2013  
Imphal, Manipur

**List of abbreviations:**

SSA- Sarva Shiksha Abhiyan

NCLP- National Child Labour Programme

GoI- Government of India

MHRD- Ministry of Human Resource Development

MME- Management, Monitoring and Evaluation

JRM- Joint Review Mission

MDM- Mid Day Meal

PAB- Programme Approval Board

TA- Transportation Assistance

CCH- Cook cum helpers

SMC- School Management Committee

PTA- Parent Teacher Association

ZEO- Zonal Education Officer

I/S- Inspector of schools

MI- Monitoring Institutes

TA- Transport Assistance

FCI- Food Corporation of India

SHP- School Health Programme

## **Executive Summary**

The Fifth Joint Review Mission on MDM for Manipur interacted with various stakeholders of the MDM programme during 22<sup>nd</sup>- 31<sup>st</sup> July 2013 in Imphal West and Senapati districts.

This, being one of the flagship programmes of the Government of India addressing hunger among all Government and Government Aided school children serves hot cooked meal that helps children come to the formal education system, concentrate on classroom activities and receive nutritional support and break the social barriers of caste discrimination.

The Mission while interacting with stakeholders to review this national programme of MDM in schools observed that although the MDM encouraged poor children belonging to disadvantaged sections of the society to attend school more regularly, the goal of full coverage in the State has been a challenge. Convergence with department of health for school health programme requires strengthening.

The introduction of occasional inclusion of eggs in the MDMS has been received well by the students. The state has initiated innovative measures like Toll free grievance redressal number and releasing of funds from Directorate to SMDCs (School Management & Development Committees) account through Deputy Commissioners by e-transfer is being continued.

### Composition of Review Mission

1. Dr. Pranati Das, Principal Scientist, Assam Agricultural University, Jorhat, Assam- Team Leader
2. Director, Education/ representative of Govt. of Manipur – Member
3. Shri V.K. Nayyar, Under Secretary, MHRD- Member
4. Dr. Ruma Bhattacharyya, Professor, Dept. of Food & Nutrition, AAU, Jorhat- Member
5. Ms. Grace Jajo- Representative of Office of Supreme Court Commissioner – Member
6. Dr. L. Leiren Singh, Head, Deptt of Education, Manipur University (MI)- Member

### Mission Co- team members

1. Mr. Tanmoy Ghatak, Sr. Consultant, NSG- MDM, Ed.CIL MHRD, GOI.
2. Ms. Tulika Tiwari, Consultant, NSG- MDM, Ed.CIL MHRD, GOI
3. Ms. Ashapura Phukan, Assistant Professor- Duliajan Girls College, Assam.
4. Ms. Barnali Mahela, Research Assistant- Dept. of Food & Nutrition, AAU, Jorhat
5. Mr. Bhaskarjit Gogoi, Research Assistant- Dept. of Food & Nutrition, AAU, Jorhat
6. Ms. Chandrama Baruah, Research Assistant- Dept. of Food & Nutrition, AAU, Jorhat

The Review Mission team was assisted by :

Sl.No.	Name	State / District	Designation
1	Mr.R.K. Tenedy Singh	State	Nodal Officer/MDM
2	Mr. H. Dolendro Singh	State	MDM - in – Charge
3	Mr. H. Bishwajit Singh	State	MDM - in – Charge
4	Mr. Ksh. Kumar Singh	State	MDM - in – Charge
5	Mr. L. Somorendro Singh	State	MDM - in – Charge
6	Mr. Th. Nabachandra Singh	State	UDC
7	Mr. T. Premjit Singh	State	LDC
8	Mr. Gopimohan Maibam	Imphal West District	Zonal Education Officer I/W
9	Mr. W. Prabeen Singh	Imphal West District	MDM - in - Charge I/ W
10	Mr. K. Sonamani Singh	Imphal West District	D.I. Zonal Education Office I/ W
11	Mr. R.K. Bhupendro Singh	Imphal West District	A.I. Zonal Education Office I/ W
12	Mr. N. Jayvidya Singh	Imphal West	A. I. Zonal Education Office I/ W

		District	
13	Mr. L. Kunjesh Singh	Imphal West District	A.I. Zonal Education Office I/ W
14	Mr. N. Biramangol Singh	Imphal West/Wangoi	Zonal Education Officer
15	Mr. S. Janeshwar Singh	Imphal West/Wangoi	D.I. Zonal Education office/Wangoi
16	Mr. W. Ingochouba Singh	Imphal West/Wangoi	A.I. Zonal Education office/Wangoi
17	Mr. Y. Bijoy Singh	Imphal West / Wangoi	MDM - in- Charge/Wangoi
18	Mr. L. Ramsong Slngh	Senapati	Zonal Education Officer / Senapati
19	Mr. H. Stephen	Senapati	A.I. Zonal Education office / SPT
20	Mr. Kuba Jhon	Senapati	Block Education officer/Tadubi (SPT)
21	Mr. P.M. Henny	Senapati	MDM - in- Charge / Senapati
22	Mr. K.R. Bou	Senapati	A.I. Zonal Education Office / SPT
23	Mr. S. Ngaoi	Senapati	Account Officer / Senapati
24	Mr. S. Victor	Senapti	Block Education Officer / SPT
25	Smt Ngachong Kipgen	Kangpokpi	Zonal Education Officer
26	Mrs. Chinnu Kipgen	Kangpokpi	D.I. Zonal Education Office
27	Mr. Seilet Kipgen	Kangpokpi	D.I. Zonal Education Office

## INTRODUCTION

The National Programme of Nutritional Support to Primary Education (**NP-NSPE**) popularly known as Mid Day Meal Scheme, is a flagship Scheme of Ministry of Human Resource Development. The programme was launched on 15th August, 1995 in Government, Government aided and Local Body Schools to enhance enrolment, attendance and retention of primary class school children and to mitigate their class room hunger through nutritional support. Since its inception the scheme has undergone many changes in its coverage and content. Provision of dry ration in the initial phase has been replaced by hot cooked meals. Presently, the scheme is being implemented in primary and Upper Primary classes of Government, Government aided, Local body Schools, National Child Labour Project Schools, Madrasas and Maqtabas supported under SSA.

The basic objectives of the Mid-Day-Meal scheme include prevention of malnutrition among children, achieve universalization of Elementary Education by increasing enrolment, retention and attendance of students and thereby reducing dropout rate and improve the nutritional level of children.

Article 21 A provides Right to Children for free and compulsory education. This has been ensured through the enactment of Right to Education Act 2009, which came into force on 1st April 2010. SSA has been designated as the vehicle to realize the provisions of RTE Act, 2009. Chapter 4, Para 21 of RTE Act, 2009 stipulates that preference will be given to disadvantaged groups and weaker sections while nominating the representatives for the School Management Committee. The Act further states that all schools should have all weather building consisting of a kitchen-cum-stores to cook mid day meal in the school by 2012-13. The model rules under RTE Act also provide that School Management Committee will monitor the implementation of the Mid Day Meal in the school.

Government of India constituted Review Missions (RM) in 2009 to review the implementation of the scheme as per the defined Terms of Reference (ToR) in various States across the country. The objectives of the Review Mission are as under:-

- (i) to review the performance of the Scheme in the selected State in the light of the Guidelines of the Mid Day Meal Scheme.
- (ii) to suggest policy measures for effective implementation of the Scheme in the State.

The State of Manipur was selected for visit of Review Mission and the 5<sup>th</sup> Review Mission visited Manipur from 22<sup>nd</sup> July- 31<sup>st</sup> July, 2013 to see the implementation of the scheme in the State. Terms of Reference (ToR) of this Review Mission are attached at *Annexure-I*. The recommendations of the Review Mission are based on the evidences collected and the information gathered during the review of implementation of the Scheme in Imphal West and Senapati districts.



## BRIEF PROFILE OF MANIPUR

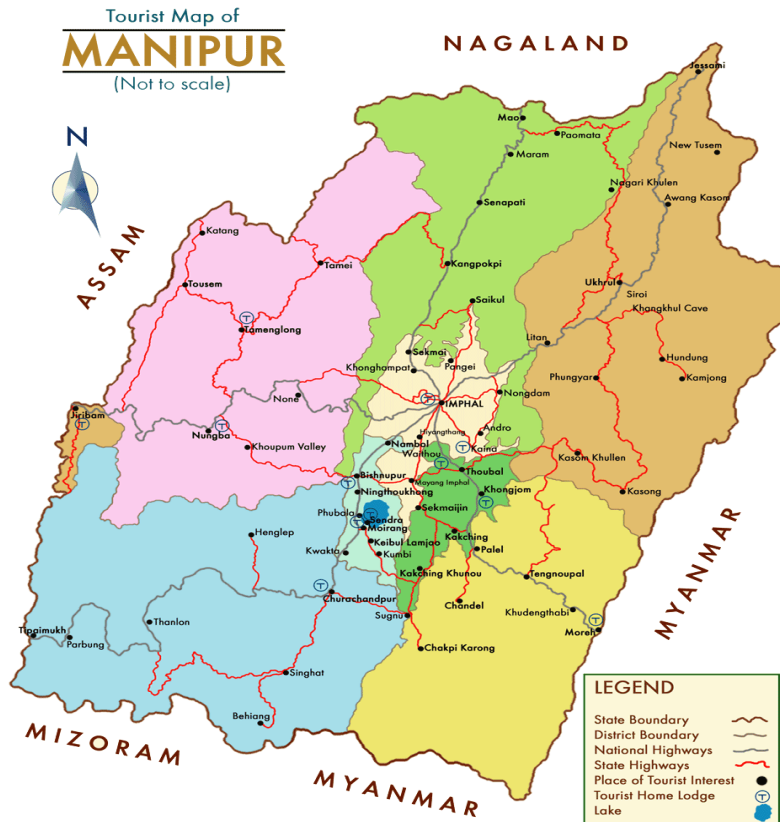
Manipur literally meaning “A jeweled land” nestle deep within a lush green corner of North East India. It seems much like an exquisite work of art executed by superb hands of Nature and is indeed a state of exquisite natural beauty and splendors, the beauty of which once inspired Mrs. St. Clair Grimwood described it as ” A Pretty Place more beautiful than many show places of the world” Late Pandit Jawaharlal Nehru paid a fitting tribute by describing it as “Jewel of India”.

Manipur is a state in northeastern India, with the city of Imphal as its capital. Its people include the Meetei, Pangal, Naga, Kuki, and Mizo, who speak different languages of branches of the Tibeto-Burman family. The state is bounded by Nagaland to the north, Mizoram to the south, and Assam to the west; Burma lies to the east. It covers an area of 22,327 square kilometres (8,628 sq mi).

### MANIPUR AT A GLANCE

Particulars	Datas
Area	22327 sq.km
Population	27,21,756
Capital	Imphal
Density of Population( per Sq Km.)	82
Literacy Rate	79.85% (2011 Census)
Schedule Tribes	33(Recongised by Government)
Assembly Constituencies	60(40 General, 19 ST, 1 SC)
Parliamentary Constituencies	2:(One for Inner and One for Outer)
National Highways	2 (39-Indo-Myanmar road, 53-New Cachar Road, 150-Jessami-Tipaimukh Road)

## Map of Manipur



### Profile of the Districts:

#### Imphal West

#### Geographical Outline

The Imphal West District falls in the Category of Manipur valley region. It is a tiny plain at the centre of Manipur surrounded by Plains of other districts. Imphal City, the State Capital is the nodal functional centre of this District.



It is surrounded by Senapati District on the north, on the east by Imphal East and Thoubal districts, on the south by Thoubal and Bishnupur Districts, and on the west by Senapati and Bishnupur Districts.

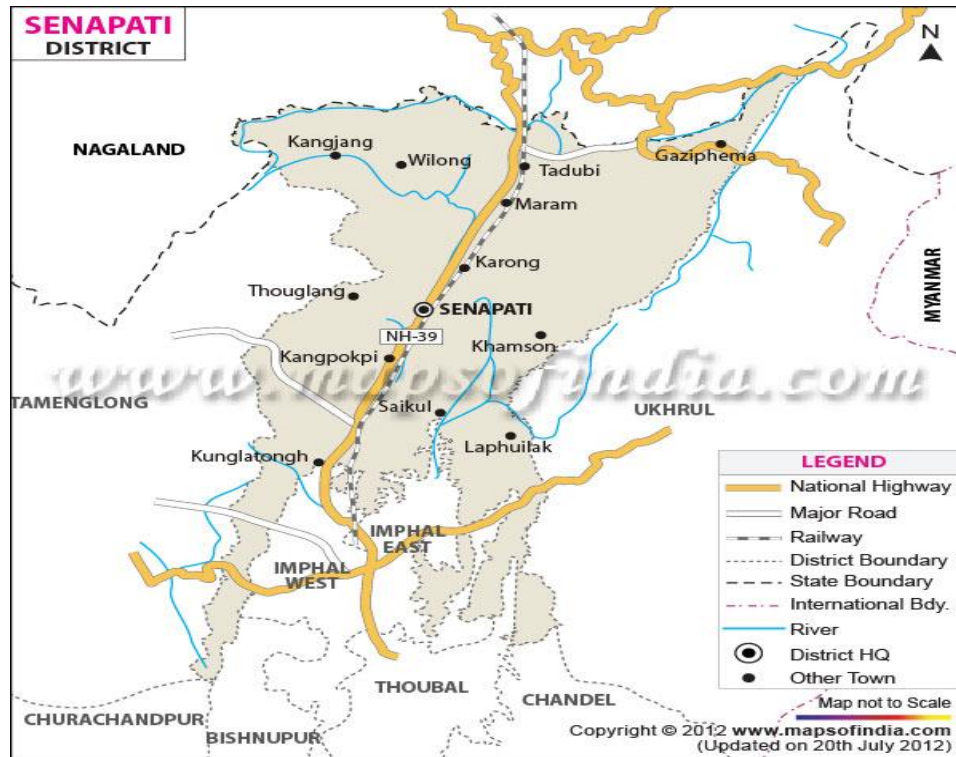
<i>Profile</i>	
Area	558 sq. kms.
Population	4,39,532 (Census 2001)
Male:	2,18,947
Female:	2,20,585
District Head quarter	Imphal
Subdivisions	4
CD/TD Blocks	2
Towns	10
Inhabited villages	117
Zilla Parishads	1
Sex Ratio	1007 (per thousand male)
Density	847 per sq. km.
Literacy rate	80.61
Male	89.1
Female	72.24
Temperature	20.4° C (average)
National Highways	2- N.H.No. 39 Indo-Burma/Myanmar Road, N.H.No. 53 New Cachar Road

### **Senapati District**

The Senapati District is located in the northern part of Manipur. It is bounded on the east by Ukhrul District, on the west by Tamenglong District, on the north by Phek District of Nagaland and on the south by Imphal East District and Imphal West District. The District is at an altitude varying from 1061 m to 1788 m above sea level. The hills run along the north south direction and gradually slope down towards south and meet the Imphal valley.

The Senapati District was earlier known as Manipur North District which came into existence wef 14 November 1969 with its headquarters at Karong. Later the district headquarter was shifted to Senapati on 13 December 1976. The District came to be known as Senapati District wef 15 July 1983.

The district is endowed with kaleidoscopic landscape of blue hills, green valleys, serpentine streams and rivers flowing through mountains and deep gorges. Rich varieties of flora and fauna adorn the land. Agriculture is the main occupation of the people and terrace cultivation is generally practiced by the people. Paddy, Maize, Cabbage, Potato, cereals are the main crops of the District. 80% of the area is covered by forest and remaining 20% is arable land.



**General Information**

**Area :** 3271 sq km

**Population :** 379214 (2001 Census)

**Altitude :** 2500 m

**Literacy :** 45.11 %

**Educational Institution :** 377 Primary Schools, 90 Middle Schools, 51 High/Hr. Sec. Schools & 3 Colleges

**Health Care Institutions :** 1 District hospital, 2 CHC, 1 TB Control Centre, 1 Homeopathic Centre, 11 PHC, 64 PHSC, 2 Dispensary, 6 Dispensary under District Council

**Roads**

92 km of NH 39 passes through the District from the south end to the north end. I-T road, Maram-Paren road, Tadubi-Tolloi-Ukhrul road, Maram-Ngari-Kachai road, Karong-Purul-Liyai road, Senapati-Khongdei-Phaibung road are other important roads in the district.

## METHODOLOGY OF THE STUDY

The districts of Imphal West and Senapati are selected for the study. The JRM has adopted the following methodology in the study:

List of all primary and upper primary schools were collected from Education Department. A sample of 23 schools from the Imphal West and 22 schools from the Senapati districts were selected for the study. The type of habitation, coverage of tribal populations and distance from the main roads, Sub Division headquarters were the criteria adopted for selection of schools. The detail list of the visited schools is attached in the Annexure.

The JRM team was divided into two groups to examine the various issues relating to implementation of mid day meal in the said districts of Manipur. A set questionnaire, observations, perceptions and measurements were taken as tools. The teams have also interacted with teachers, students, cook cum helpers, SMDC members and local people to understand the reality of MDM implementation at the field level.

The Review Mission followed a methodology to capture the intricacies involved in the implementation of the programme. Instead of selecting a large sample, the review mission emphasized for a greater in depth study in selected samples to see the details in their entirety.

- i. The documents available with the implementing agencies were carefully studied and analyzed. Detailed discussions were held with State, District, Zone and School level functionaries
- ii. Interview with stakeholders, observations, focused group discussions and record based inquiry methodology was followed to capture the information on the performance of the scheme during the visits.

From the schools around 12.1 percent children were selected for assessment of nutritional status on the basis of anthropometric measurement and clinical assessment. The data collected are analysed through standard computer softwares.

Finally, the report of the JRM (MDM) was prepared and presented as per the terms and conditions.

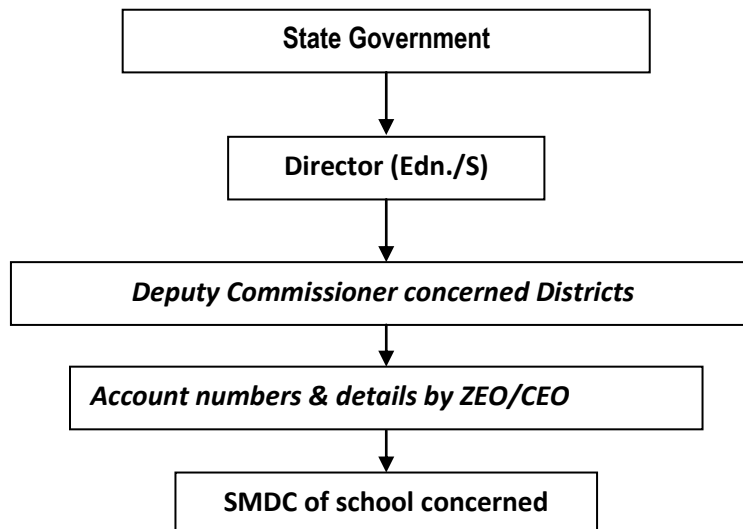
## OBSERVATIONS OF THE JOINT REVIEW MISSION

On the basis of the data made available, field observations, interaction with various stakeholders as well as the nutritional assessment of the students, the observations made by the Mission have been discussed herein. To facilitate the discussion, these observations have been categorized into two sections – assessment of MDMS (Mid Day Meal Scheme) and assessment of nutritional status.

### Assessment of MDMS

1. Review the fund flow from the State Government to schools/cooking agency and the time taken in this process

The existing system of fund flow from the Finance Department to the school level involves the following steps.



The actual time taken in transfer of funds from State to districts has been shown in the following table:

Sl.	Components	Date of fund release by State to Directorate	Date of fund release by Directorate to District	Gap (No of days) between funds receiving and releasing	Reason for delay
1	Cooking cost	Rs. 360.89 lakhs on 15/01/2013	(i) April to June '12 on 09/11/2012, (ii) July '12 on 26/12/2012, (iii) August to December '12 on 05/02/2013 (iv) January to March '13 on 29/05/2013 (v) April to June '13 on 22/04/2013 (Adhoc)	(i) & (ii) released from the available unspent balance  (iii), (iv) & (v) 20 days only	Delay in release of fund by the State Government
2	Kitchen Sheds	Yet to be released	Yet to start. Sanction from the state Government is awaited.		
3	Kitchen devices		Sanction is awaited.		
4	MME	Rs. 11.01 lakhs on 15/01/2013	(i) For July ,12 on 23/06/2012 (ii) August to October '12 on 06/11/2012 (iii) November '12 to March '13 on 01/03/2013	(i) & (ii) released from the available unspent balance  (iii) 20 days only	Delay in release of fund by the State Government
5	Transportation	Yet to be released	29/04/2013	The release of fund to the District was made on yearly basis.	Delay is caused due to unreleased of fund by the State Govt. however, the expenditure was made from the available unspent balances of State Share
6	Honorarium for CCH	Rs. 147.24 lakhs on 15/01/2013			

It is evident from the above table that the State Directorate received the first installment of fund of 2012-13 only on 15<sup>th</sup> January 2013 i.e. during the last quarter of the financial year and it took 10 months to release the fund from State Government to State Directorate. On the other hand State Directorate had released the fund for the period of April-June 2012 only on 09.11.12 to the Districts from their unspent balance of previous year. More than 7 months delay has been reported for release of fund from State Directorate to Districts. Release of fund for other months of the financial year 2012-13 has been delayed by more than 5 to 7 months. The details are mentioned in the above table. This huge delay in release of cooking cost from State to Districts



might have been resulted to interruption in supply of MDM to the children at the schools. The delay in release of fund has also been reported for MME fund, Transport Assistance and Honorarium to cook cum helpers. For kitchen shed and kitchen devices the fund has not yet been released and sanction is still awaited from the State Government.

For Imphal West District, 128 days delay has been reported for release of fund of 1<sup>st</sup> Quarter of 2012-13. The District has released the fund on 19.3.2013 for the month of April-June 2012. On the other hand for Senapati District, it is reported that District authority released the fund of 1<sup>st</sup> Quarter of 2012-13 on 04.01.2013.

The fund release details (cooking cost) for both the districts is shown in the following tables:

<b>Name of the District</b>	<b>Date of fund received by the district from state</b>	<b>Date of fund release by District to Block</b>	<b>Gap(No of days) between funds receiving and releasing</b>	<b>Reason for delay if any</b>
Imphal West	1st Qtr - 09/11/2012 , July 12 - 26/12/2013 Aug-Dec,12 - 05/02/2013, Jan- March '13 - 04/03/2013	1st Qtr - 19/03/2013 July ' 12 - awaiting Aug - Dec.'12 - 03/05/2013 Jan - March'13 - 24/06/2013	128 days days 85 days 110 days	Cheque misplaced for July'13
Senapati	1st Qtr- 10/12/2012 , July 12- 13/01/2013 Aug-Dec,12 - 20/02/2013, Jan- March '13 - 20/03/2013	1st Qtr - 04/01/2013 July ' 12 - 04/04/2013 Aug - Dec. '12 - 04/04/2013 Jan - March'13 - 26/4/2013	23 days 78 days 42 days 33 days	Being Communication Gap

So it is depicted from the information that all the schools in both the districts have received the fund of 1<sup>st</sup> Quarter after 10 months or more. With this huge delay, the schools must have faced severe difficulty in supply of MDM to the children and interruption might have occurred in regular supply of MDM to the children.

*Observations from JRM:*

In all the visited schools negative balance of cooking cost has been observed by the JRM which should be an outcome of delay of release of fund from State to Districts and from districts to Schools. It was found that there is a negative balance at the beginning of July 2013, which is very high at some places. During the interaction with the Head masters, they claimed that in case of unavailability of fund from the District authority they manage it from their own pocket or on credit basis from the local shop. Although due to poor record maintenance many of the schools could not produce the proper record in support of their claim. Unavailability of cooking cost and other fund at the school level might have resulted in interruption in supply of MDM to the children on regular basis. Unavailability of cooking cost is especially hard in schools since firewood, vegetables and other ingredients have to be bought on payment and no credit is available from small farmers/ vendors.

To ensure regular implementation of MDM, delay in fund release on the part of State Finance Department needs to be addressed. Many funds released from GOI are found yet to be released by the State Government. Furthermore, it is also found that after the release of funds from the State to the Deputy Commissioner concerned, there is considerable delay in releasing from Districts to Schools. The State Finance Department needs to ensure immediate release of funds as and when received from the GoI. After transferring the funds from State to District, to avoid any sort of delay on the part of the District, it is suggested to transfer the fund through Zonal Education Officers concerned as they are also found to be involved while sending through DC concerned in the present system.

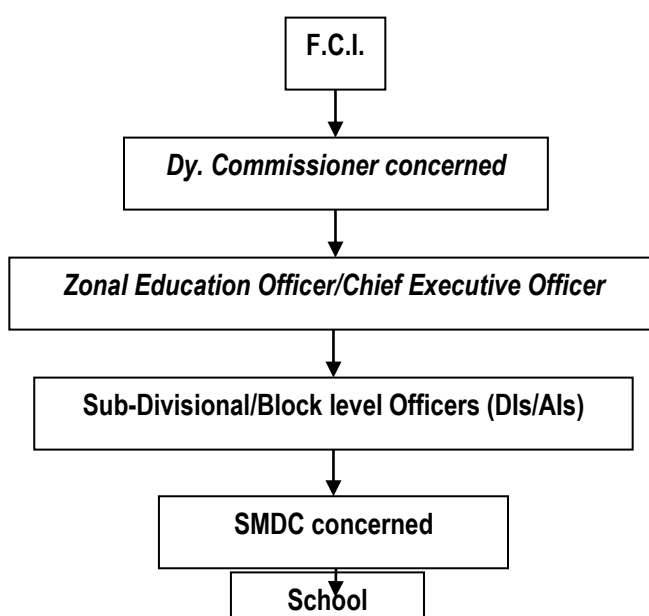
The fund flow system from the state to the schools needs to be streamlined along with appropriate monitoring and redressal systems so as to ensure that there is no delay in transfer of cooking costs leading to negative balances in the school MDMS accounts.

## **2. Food grain flow**

In Manipur, Deputy Commissioner of the concerned districts are responsible for lifting of food grains from FCI Godown and Zonal Education Officers are in turn calculate the requirement and distribute the food grain to schools. Zonal Education Officers make the

temporary arrangement for storing of food grains and the School authorities arrange for lifting of rice from there and keep the lifted rice in school.

The detailed food grain flow is shown in the following diagram.



Allocations of food grain from the State are always made before the start of a quarter. Then indents are placed by Deputy Commissioner concerned and after verifying the quantity it is submitted to FCI. Then it is lifted by agencies engaged by the DC concerned for further distribution to schools. Temporary godowns are arranged by district officials as per requirement.

The food grain flow from State to Districts is shown in the following table:

Date of food grain release by the State to district				Date of food grain received by the district from State	Gap(No. Of days) between food grain received	Reason for delay if any
Quarter	District	Z.E.O	Date of Issue	Date of Received	Gap	
1 <sup>st</sup>	Imphal West	Zone-I	07 March 2012	07 June 2012	3 months	Late submission of Indent by District
		Wangoi	07 March 2012	25 June 2012	3 months 8 days	do/-
	Senapati	Senapati	07 March 2012	21 May 2012	2months 4 days	do/-
		Kargpokpi	07 March 2012	22 May 2012	2 months 5 days	do/-
Quarter	District	Z.E.O	Date of issue	Date of Received	Gap	

JRM MANIPUR REPORT, 22-31 July, 2013

2 <sup>nd</sup>	Imphal West	Zorel	07 March 2012	13 June 2012	3 months 6 days	Late submission of Indent by District
		Wangoi	07 March 2012	25 June 2012	3 months 18 days	do/-
	Senapsiti	Senapati	07 March 2012	22 September 2012	6 months 5 days	do/-
		Kai gp	07 March 2012	21 July 2012	4 months 4 days	do/-
Quarter	District	;Z.E.O	Date of Issue	Date of Received	Gap	
3 <sup>rd</sup>	Imphal West	Zone-1	11 September 2012	24 December 2012	3 months 13 days	Late submission of Indent by District
		Wangoi	11 September	24 December 2012	3 months 13 days	do/-
	Senapati	Serapati	11 September	15 December 2012	3 months 4 days	do/-
		Kangpokpi	11 September	17 December 2012	3 months 6 days	do/-
Quarter	District	Z.E.O	Date of	Date of Received	Gap	
4 <sup>th</sup>	Imphal West	Zone-I	11 September 2012	nil	x	Late submission of Indent by District
		Wanjioi	11 September	nil	x	do/-
	Senapati	Sen ap	11 September	19 March 2013	6 months 8 days	do/-
		Kangaokpi	11 September	25 March 2013	6 months 14 days	do/-
District	Z.E.O	Food grain Allocation	Food grains lifted (Qtls)	Food grains Utilized till 31 March, 2013 {Qtls.}	Percentage Utilization	
Imphal West	Zone-I	756.65 Qtls.	756.65	515.04	68.07	
	Wangoi	509.09	509.09	391.38	76.88	
Senapati	Senapati	870.34	870.34	804.1	92.39	
	Kangpokpi	1131.27 Qtls.	1131.27	930.74	82.27	

The food grain flow details from for both the districts are shown in the following table:

Name of the District	Date of food grain released by the District to ZEO	Date of food grains released by the ZEO to Schools	Gap(No of days) between foodgrains receiving and releasing
Imphal West	1st Qtr.- 23/05/2012 2nd Qtr - 18/12/2012 3rd Qtr. - 18/12/2012 4th Qtr. - 11/03/2013	1st Qtr.- 07/06/2012 2nd Qtr - 20/12/2012 3rd Qtr. - 24/12/2012 4th Qtr. - 16/03/2013	13 days 9 day 5 days 4 day
Senapati	1st Qtr.- 20/06/2013 2nd Qtr - 21/09/2012 3rd Qtr. - 17/12/2012 4th Qtr. - 15/03/2013	1st Qtr.- 23/06/2013 2nd Qtr - 22/09/2012 3rd Qtr. - 19/12/2012 4th Qtr. - 16/03/2013	2 days 1 day 2 days 1 day

It is evident from the above table that none of the districts have released the food grains in advance. So it is clear from the information provided by districts that all the schools have

received the food grains at the end of the quarter. As per the MDM Guidelines minimum one month buffer stock of food grains should be maintained at the school level for uninterrupted supply of MDM to the schools. In all the quarters all the schools have received the food grains mostly at the end of that quarter which is against the provision of the guidelines. Unavailability of food grains at the schools could have been resulted in interruption in supply of MDM to the children.

**Observations:**

As per guidelines issued by the MHRD, GOI, the cost of lifting of food grains is paid directly to the Area Manager, FCI, after bills are received duly certified by the Zonal Education Officers. Bills are paid on a quarterly basis.

**JRM team members visited FCI go down in Imphal and made the following observations:**

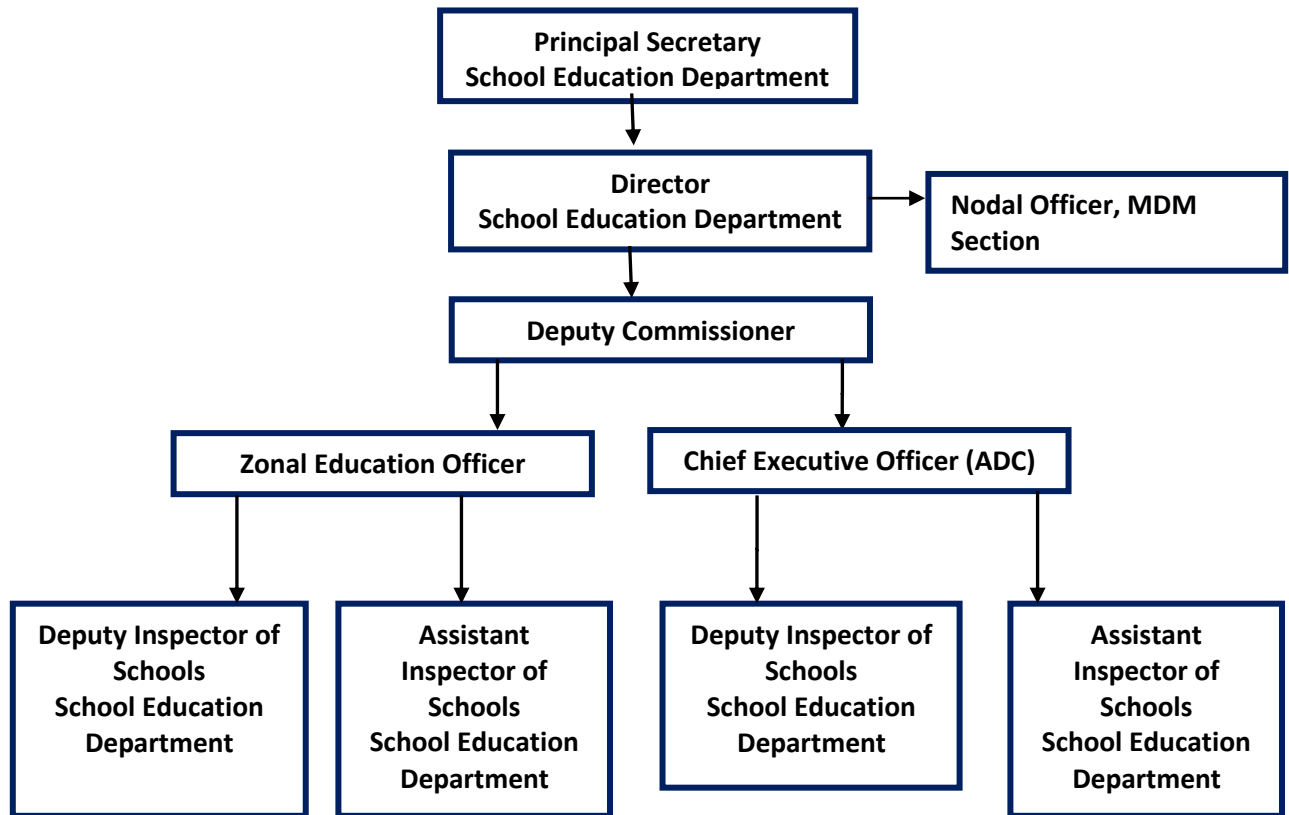
- There are altogether 5 units with a capacity of 2500 metric tonnes (MT) per unit. These 2500 MT grains in one unit are distributed in two different chambers. Additionally one more unit with 590 MT storage capacity is also used for grain storage.
- Jute bags with grains are stacked in the floor with a polythene sheet or wooden racks.
- Both rice and wheat are stored in the units.
- MDM rice is dispersed from FCI godown as per district level requisitions.
- Insecticides/pesticides used in the storage are :-
  1. Aluminium phosphite, as a curative measure. Tablets of aluminium phosphites are used for fumigation. Dose is ; 3gm (per tablet) x 3 tablets (total 9gm) per MT.
  2. Melathione (liquid): 43ml/100MT. dilution factor is 1:150 ml of water which is used by spraying. Melathione is used as a preventive measure.
  3. Deltamathrine is another insecticide used as preventive measure. Dose is 170ml/100MT. Dilution factor is 1:150 ml of water, which is used by spraying.
  4. For rodent control, fumigation is done through rat burrows using aluminium phosphate, 2-3 tablets/hole.
- Only after a week of using the insecticide/pesticide, grains are released from the godown.
- Storage period in the godown is from 7-15 days to a maximum of 1-2 months.
- Overall cleanliness of the units in the FCI godowns was found to be satisfactory.
- Grain quality (rice) was also found to be good.

**Supply/ lifting of food grains:**

It was found that indent for food grains is not laid in time from the District offices to FCI Area Manager causing delay and interruption in supply of food grains in time. .For example, in Senapati District, the indent for food grain (rice) for the first quarter of 2013-14 was sent by the district on 14<sup>th</sup> June, 2013 to FCI Area Manager. FCI issued the release order on 20<sup>th</sup> June, 13 and then the Assistant Inspector (S), Zonal Education office collected the food grain on 22<sup>nd</sup> June, 13 i.e. at the end of the quarter.

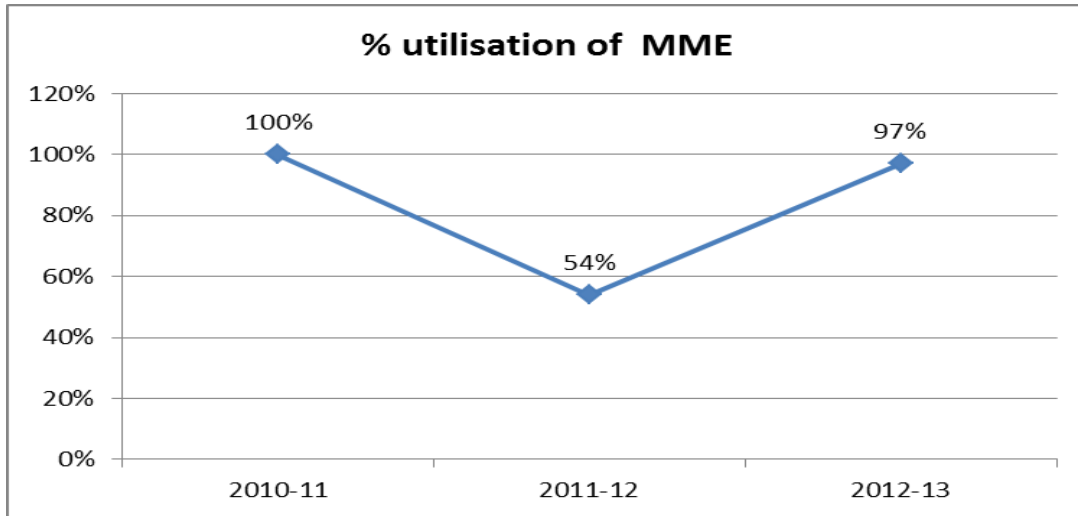
**3. Management and monitoring of the scheme from the State to school level**

The present Management structure of Mid-Day Meal is totally under the Directorate of School Education. At the State level Principal Secretary, School Education Department, Govt. of Manipur controls the MDM implementation at the State Level. The Nodal officer of Mid-Day-Meal Section is assisting the Director, School Education Department to oversee the implementation of MDM. However, at the District level Deputy Commissioner concerned is responsible for MDM implementation through Zonal Education Officer and Chief Executive officer (for Autonomous District Council) at the District and the Block level. Under ZEO and CEO, Deputy Inspector (DI) and Assistant Inspector (AI) are supervising the overall MDM implementation at the school level. The existing management structure for implementation of the scheme has been shown in the following diagram.



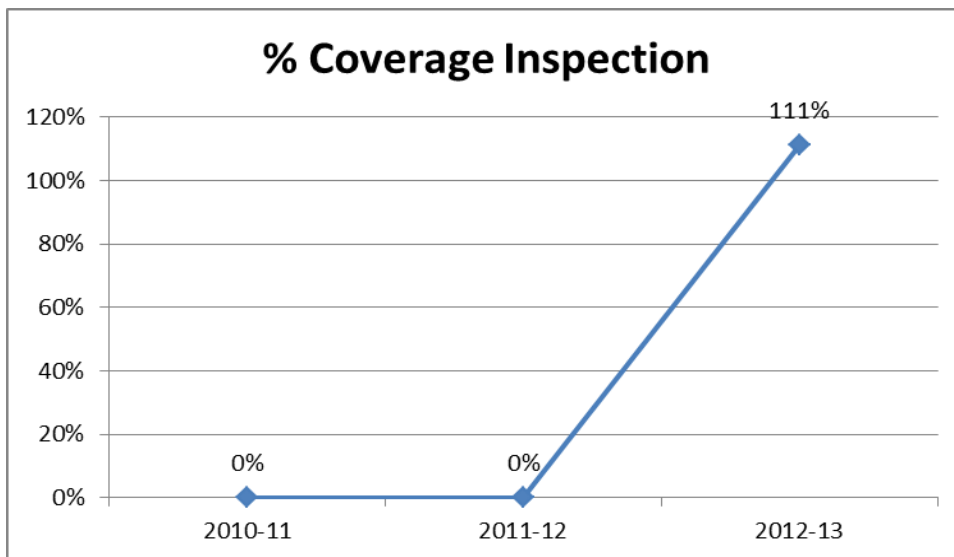
**Figure: Management Structure for implementing MDMS**

Monitoring is an integral part of implementation of the MDM scheme and utilisation of Management, Monitoring and Evaluation (MME) fund shows the performance of the States/UTs in monitoring of the MDMS. The year wise utilisation of MME fund has shown in the following graph.



The above data depicts the fact that as compared to previous financial year, the utilisation percentage has been improved during 2012-13 and reached 97% as compared to 54% in the previous year.

The corresponding data on inspection of schools has been shown below.



The inspection of schools has also been improved over the period of time. More than 100 inspection coverage depicts the fact that all the existing schools have been inspected at least once by any Govt. official during the financial year and some of the schools have been inspected more than once. But as per the information available, during 2010-11 and 2011-12 the % coverage of inspection was 0%. It is due to the fact that the State Government might not have provided the information of inspection.



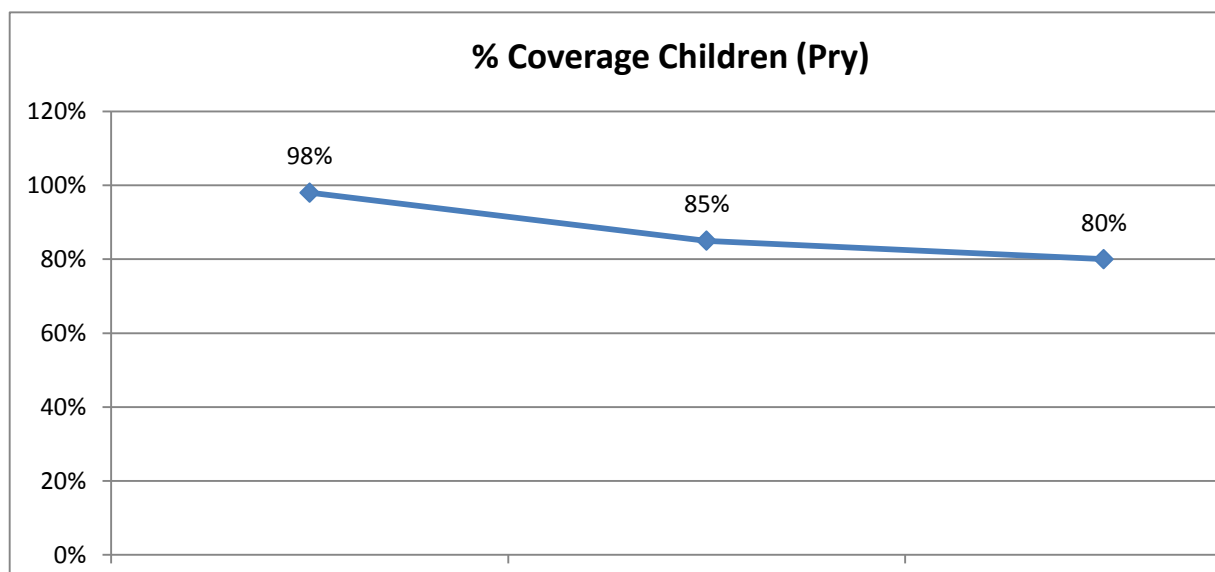
**Observation:**

During the school visit it has been observed that schools are rarely visited by State Officials or District Officials or School Inspectors. Although some of the school teachers reported about visit of District Officials but which is also irregular. Inspection registers are rarely found in the schools. Irregular inspection to the schools may result in irregularities in MDM. Regular inspection will help in solving the problem of delay in supply of cooking cost, delay in supply of food grains, delay in payment to cook cum helpers and any other MDM related issues. The School inspectors reports should also include remedial action to be taken for shortfalls in food grains and cooking costs, delay in payment of cook cum helpers and any other MDM related issues, operational drinking water facility and toilets etc.

**4. Implementation of the scheme with reference to availability of food grains, quality of MDM, regularity in serving MDM as per approved norms and mode of cooking**

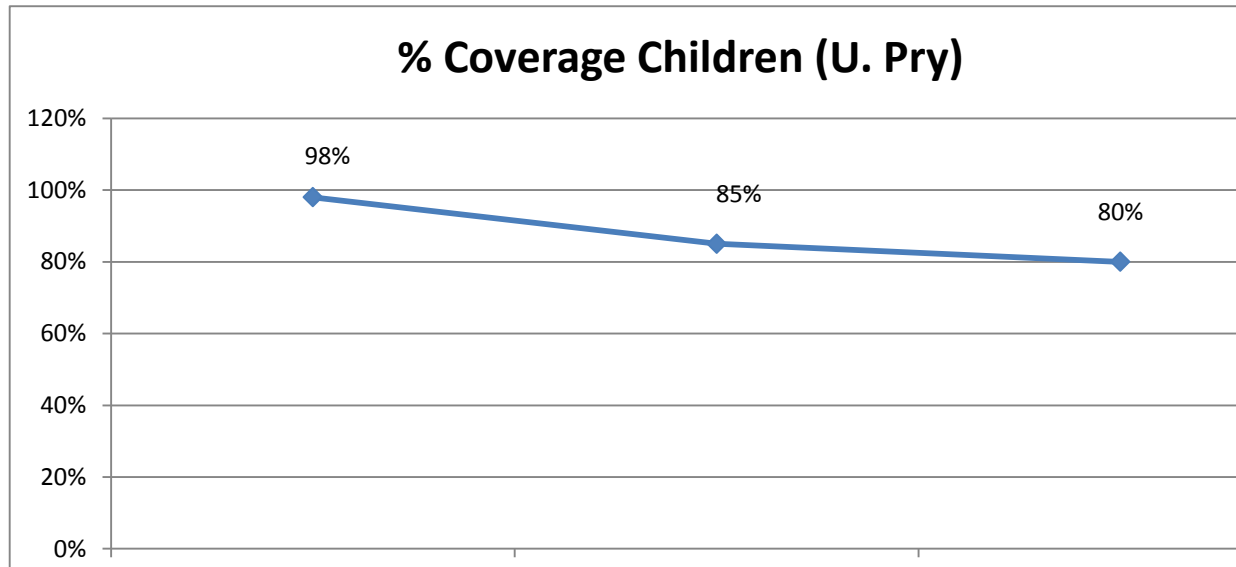
***4.1. Percentage Coverage of children against enrolment (Primary and Upper Primary)***

The coverage of children against enrolment in Primary for the last three financial years has been shown in the following graph.



It depicts from the above graph that the percentage coverage of children during the last three financial years is lowest during 2012-13 and it is decreasing over the period of time. It has decreased from 98% in 2010-11 to 85% during 2011-12 and further decreased to 80% during 2012-13. Therefore an overall decrease of 18% has been observed from 2010-11 to 2012-13 which needs immediate attention by the State Government.

The percentage coverage of children depicts the same figure for upper primary stage also.



**District Data**

The coverage of Schools, children and working days for the two districts are shown in the following tables

Table: Coverage of schools and working days for MDMS of Imphal West District

Stage	Total no. of Schools/Centers	No. of children approved	No. of working days approved	No. of schools/centers actually served	No. of children covered	No. of working days
PS	251	13881	227	251	12223	211
UPS	121	5374	227	121	4530	211

Table: Coverage of schools and working days for MDMS of Senapati District

Stage	Target			Achievement		
	Total No. of School	No. of Children Approved	No. of Working Days Approved	No. of School Actually Served	No. of children covered	No. of Working Days
PS	467	33822	227	467	30890	204
UPS	72	3825	227	72	3564	205

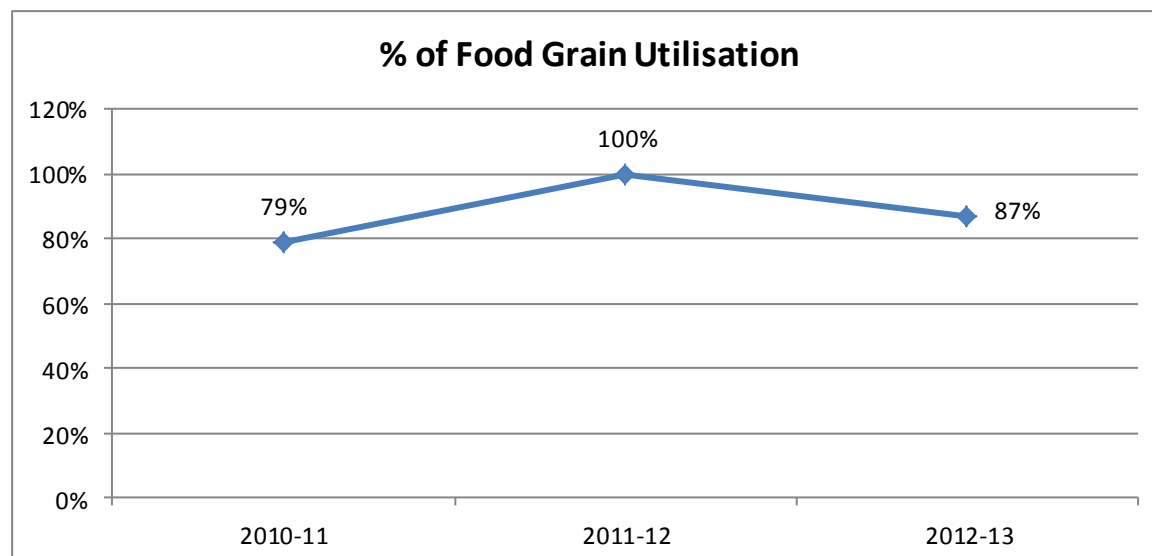
As per the information provided by the Districts, both the districts have covered all the eligible schools during 2012-13. Imphal West district has covered 211 working days against 227 working days whereas Senapati district has served MDM on 204 & 205 no. of working days respectively for primary and upper primary classes.

Observation:

On the day of visit all the schools were cooking and serving meals to all the children present in the schools. But it is also found that there is negative cooking cost in most of the visited schools and minimum one month buffer stock has not been maintained in most of the schools visited. So there could have been interruption in serving MDM to the children.

4.2. Food grain utilization

Utilization of food grains is an important indicator to understand the performance of implementation of the MDMS in the State. As per the available data of last three financial years, it is found that the food grain utilization is decreased from 100% in 2012 to 87% during 2012-13. This utilization has been decreased solely due to fall in coverage of children in primary and upper primary level schools of the State. The graphical representation is shown below.



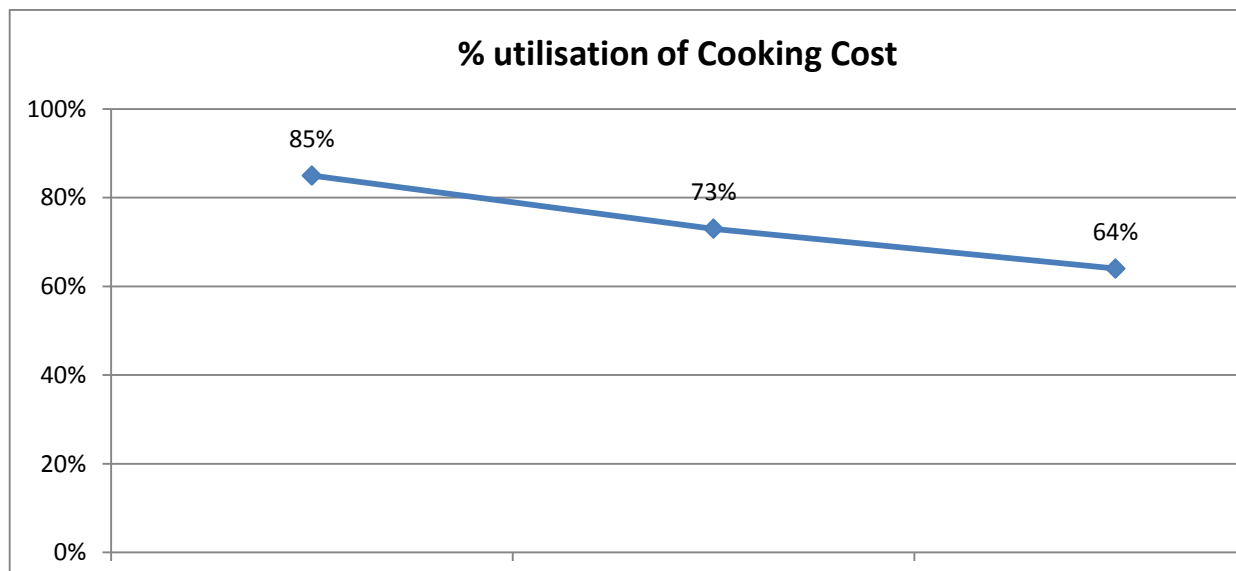
District wise information provided by the State Govt. depicts the fact that Senapati District has utilized 84% of allocated food grains (731.94 MT) at the end of the 2012-13. On the other hand, as per the information Imphal district has utilized more than 100% allocated food grains till the end of 2012-13. It has also utilized the previous balance of food grains during this period.

Observation: As per the MDM Guideline, one month buffer stock of food grains should be maintained at the school level for uninterrupted supply of MDM to the children. It has been observed that in most of the visited schools food grains are not being supplied timely to the schools. Most of the visited schools have received the food grains for the 1<sup>st</sup> Quarter of 2013-14 only during May 2013 or June 2013. As a result of which most of the visited schools have negative balance of food grain during start of the financial year 2013-14. Non availability of food grains might have resulted in irregularity of MDM in the schools and the children were being deprived of hot cooked meal. It has also been found that many of the visited schools do not have enough food grain stock to run MDM in next month. This may result in interruption of MDM in these schools. Although the Head Teachers have claimed that in case of shortage of food grains they manage themselves i.e. purchase from local shops. Purchase of food grains from the local shops are not also properly recorded in the stock registers which also leads the confusion whether it has actually been purchased or not. Most importantly it is clearly mentioned in the MDM Guideline that *“FCI will issue food grains of best available quality, which will in any case be at least of Fair Average Quality (FAQ)”*. Therefore purchasing food grains by the schools from the local shops is a major area of concern as the food grains may not be of FAQ which is mandatory as per MDM Guideline.

Apart from that as per MDM Guideline, food grains should be supplied at the door steps of the schools. But during visit it has been found that the school authority has to lift the food grains from the local godowns which is really burdensome for the teachers.

#### 4.3 Utilization of cooking cost

The utilization of cooking cost against allocation for the last three financial years has been shown in the following graph.



It is evident from the above figure that in compliance with fall in coverage of children in primary and upper primary schools, the cooking cost utilization has also decreased from 85% in 2010-11 to 64% in 2012-13. The overall fall in percentage utilization of cooking cost is 21% during 2010-11 to 2012-13.

As per the information provided by the District authority Imphal West District has utilized 93.65% of the allocated cooking cost whereas Senapati District has utilized 100% of the allocated fund.

Observation: In all the schools it has been observed that cooking cost is not available at the school level. It has been claimed by school teachers that in case of unavailability of cooking cost MDM is run on credit from the local grocery shops. Most of the visited schools have not yet received the cooking cost from April 2013. Unavailability of cooking cost might have resulted in interruption in serving of MDM on regular basis to the children. Record keeping of the cooking cost utilization is also very poor in most of the visited schools. The voucher of materials purchased under cooking cost is not maintained properly in most of the visited schools.

#### 4.4. Quality of MDM

Observations regarding quality and quantity of the food served under MDMS are as follows-

General quality of MDM varied widely. There is no fix menu for the schools, depending upon the availability rice is served along with vegetable curry, dal and local chutnies.

Three sample meals collected randomly from three schools were calculated for its nutrient content in terms of calories and protein and depicted in the following table :

#### **Nutritive value (approximate) of MDM served in selected school**

<b>Meal</b>	<b>Food served</b>	<b>Protein (g)</b>	<b>Calories (Kcal)</b>
Meal 1	Rice + Veg curry (Potato & cabbage)	6.1	317
Meal 2	Rice+ Dal	9.8	360
Meal 3	Rice+ Dal + Veg curry (Nutrella, Potato + cabbage)	12.8	440
<b>Recommended Value (MDM)</b>		<b>(primary)</b>	<b>12</b>
		<b>(Upper primary)</b>	<b>20</b>
			<b>450</b>
			<b>700</b>

Meal 1 comprising of rice and veg curry (potato & cabbage) contain energy 317 kcal and protein 6.1gm. Meal 2 comprising of rice, and dal contain energy 360 kcal and protein 9.8gm. Meal 3 comprising of rice, dal, and vegetable curry contain energy 440 kcal and protein 12.8gm. Both meal 1 and meal 2 are having the calorie and protein content much below the recommended value of MDM. However, meal 3 is at par with the RDA of primary school children.

#### 4.5 Regularity in serving MDM

On the day of visit all the schools were cooking and serving meals to all the children present in the schools. As per the attendance register of MDM it is also found to be regular. But it is also found that there is negative cooking cost in most of the visited schools and minimum one month buffer stock has not been maintained in most of the schools visited. So there could have been

interruption in serving MDM to the children. Moreover, students of some of the visited schools have also reported that there is irregularity in supply of MDM to them which is a major area of concern and needs immediate attention.

#### 4.6 Mode of cooking

Use of firewood as cooking mode was observed in most of the visited schools due to poor availability of LPG and its high cost. Only one or two schools were using LPG to cook MDM on the day of visit. The open chullah's led to smoke filled kitchen sheds.

#### 4.7 Health, hygiene and sanitation

Health is cleanliness and cleanliness is one of the main defenses against diseases, whether contagious or self-generated. Good health can be achieved through sanitary habits and healthy way of living. What is considered hygienic or not can vary between different cultures or groups. However, some regular hygienic practices may be considered as good habits by a society while the neglect of hygiene can be threatening.

#### Observations:

Health status of 12 percent of children (n= 773) of 45 schools visited under Mid Day Meal programme was examined physically. It was observed that personal hygiene of the children in many of the schools was very poor which led to skin related problems in many of the cases.

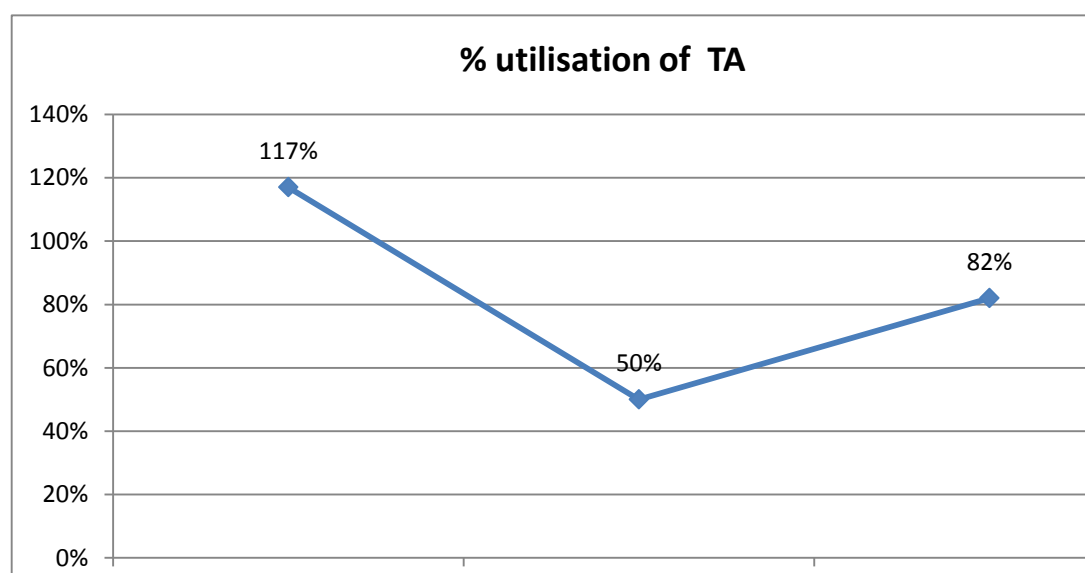
Additionally, the environment under which Mid Day Meal is prepared and served were evaluated. Following are the observations.

- Majority of the kitchen sheds are in very poor shape and unhygienic.
- In most of the schools hand washing before eating is not in practice.
- A common bucket of water is kept for hand wash and after meal all the children wash their hands by dipping repeatedly in the same water.
- Sometimes same water is used even for rinsing the plates.
- There is no proper washing area for utensils.
- In most of the cases food is served in open places, which is not clean
- Although, some of the schools use varandah for serving food to the children, cleanliness is not maintained

Only a few schools are in practice of proper hand wash with running water, proper washing area and proper eating place.

#### 4.8 Utilisation of Transportation Assistance

Government of India is providing 100% transport assistance for transportation of food grains from FCI godown to delivery up to school level. The status of utilisation of transport assistance is shown in the following graph



As per the available information the TA utilisation has been improved during 2012-13 (82%) as compared to last financial year 2011-12 (50%).

The district wise TA utilisation status is shown in the following table:

Name of the District	Fund allocation (Rs. In Lakhs)	Fund received (Rs. In Lakhs)	Exp. As on 31.03.2013 (Rs. In Lakhs)	% of utilisation
Imphal West	15.00	8.9	8.9	100%
Senapati	29.00	20.65	20.65	100%

As per the information provided by the Districts, both the districts have utilized 100% of the allocated fund during 2012-13. But the fund availability is lower than the allocation during this period.



Observation: During visit to the schools it has been found that all the schools have to lift the food grains from local go down arranged by DIs/ AIs and they have to make payment from the school or from their pocket. This might have created problem in timely lifting of food grains and thus lead to unavailability of buffer stock at the school level. This may also lead to interruption in supply of MDM for the children.

## **5 Role of teachers**

Role of teachers is very critical in the implementation of MDM at the school level as he/she is the only official who is physically present to monitor the entire process of MDM – procurement of food grains and other material, quality of food, regularity in serving hot cooked meal, issues relating to hygiene and sanitation and so on. The Ministry of HRD guidelines of 2006 for MDM specifically mention that teachers should be involved in ensuring that good quality, wholesome food is served to children, and that the actual serving and eating is undertaken in a spirit of togetherness, under hygienic conditions, and in an orderly manner so that the meal times are maintained without extending them. The teachers are also expected to taste food prepared before it is served to children.

Greater involvement of the teachers to oversee the smooth implementation of the MDM would improve the programme. Here the expectation would be especially in two aspects, namely testing the food for quality and ensuring the regularity. It will further involve monitoring the procurement, cooking procedure and serving food hygienically and punctually. In an ideal situation the teachers can actually observe the improvement of pupils performance and improve in attendance/enrolment as an immediate result of serving cooked MDM in schools.

MDM can also be an attraction for the dropouts and never been in school category of poor children to enrol in government schools. So improvement of quality and dissemination of this aspect to the parents and pupils will lead to holistic result.

This is already apparent in the schools where such shared responsibility has enhanced the quality of food and increase enrolment thus reducing the out of school children in the vicinity. In most of the schools, MDM is seen as an entirely independent programme with only the head teachers having knowledge of fund size and implementation. Such exclusiveness breeds misappropriation and compromises on the frequency and quality of MDM.

## 6 Convergence with School Health Programme (SHP) for supplementation of micronutrients and health check-ups and supply of spectacles to children suffering from refractive errors

The MDMS guidelines envisage that necessary interventions like regular health Check-ups, provision for de-worming tablets and supplementation of micronutrients like Vitamin 'A' dosage and IFA tablets are to be provided in convergence with the National Rural Health Mission (NRHM) of Ministry of Health & Family Welfare. As per the information given by Government of Manipur, Health checkups are being carried out but are not very regular and Health card for each child are maintained in few schools only. Periodic monitoring of height and weight of children are not done at all.

### OBSERVATION:

**However**, Mission Team has found that teachers are not aware about the implementation of School Health Program in the state. Health cards are not provided by NRHM in any of the School. It was found that SHP is not implemented yet in the schools visited by Mission. It seems that there is no convergence of NRHM and School Health Program in Manipur.

## 7 Creation of capital assets through kitchen cum store/kitchen devices and infrastructure

Status of construction of kitchen cum store is shown in the following table:

(i) Constructed and in use	300 constructed
(ii) Scheme under which Kitchen sheds constructed -MDM/SSA/Others	MDM
(ii) Constructed but not in use	0
(iii) Under construction	200
(iv) Sanctioned, but constructed not started	( 674 + 1792)
(v) Not sanctioned	329

### Status of procurement of kitchen devices:

Central assistance of Rs. 155.35 lakh has been released to Government of Manipur towards procurement of kitchen devices for 3107 schools during 2006-07 to 2012-13. The analysis of the data indicates that the State has procured kitchen devices for 1457 schools for Rs. 72.85 and procurement of 1650 units are in progress. During the year 2012-13, 1316 units have been sanctioned for replacement.

### Observation

- In Manipur, construction of Kitchen Shed is assigned to National Mission on Bamboo Application under Ministry of Science and Technology, GOI. Earlier the progress of the Agency was not satisfactory however the issue is addressed in consultation with NMBA for early completion. The JRM observed that in 20 schools out of 45 i.e. in only 44.4 % of schools, kitchen sheds were available out of which only 12 schools were using them for cooking the mid-day meal. On account of less space, these sheds are being used for storage of food grain, pulses and other materials.

- Food is cooked in temporary arrangements like **classrooms, community hall near the schools or open spaces. In Mayang Imphal Girls Jr. High School (Aided school) of Imphal West District, the situation is dangerous as cooking and classes are going simultaneously in the class room. Since firewood is used for cooking; resulting in ash**



Figure 1 Mayang Imphal Girls Jr. High School (Aided school), Imphal West

**contaminating the cooked food as well as smoke spreading into the classrooms disrupting studies or may lead to any accident anytime.** It was observed that in some of the schools, food grains are stored in classroom with bad maintenance. There are 20 schools where cooking is being done in spaces either contributed by the School

Management Committee, made under school fund or some temporary arrangement is made for cooking.

- There is a long pending issue of refund of the excess amount of **Rs. 651.65 lakh to Central Government Account released as non-recurring grant for construction of 97 kitchen cum stores during 2010-11**. The matter had also been discussed in the PAB –MDM meeting held on 19.3.13 where state has assured to take up the matter with the state finance department. **But despite several reminders, State Government has not refunded the amount referred above till date.**

It is important to mention that State Government had submitted a proposal for construction of kitchen sheds during 2006-07 to 2009-10, which was approved and Rs. 7.04 crore was released to the state government. . In the year 2010-11, an additional 1889 kitchen sheds were approved and central grant of Rs. 3579.02 Lakh was released. In all a total of 3063 kitchen sheds were sanctioned to the state.

It was observed in PAB - MDM held in 2011 that State government has covered only 2966 institutions under the Mid-Day Meal Scheme. Thus, against the actual requirement of 2966 a total of 3063 kitchen shed were sanctioned to the states. (1174 for 2006-07 to 2009-10 & 1889 in 2010-11). It was decided that the differential amount in respect of 97 kitchen sheds sanctioned may be recovered from the State Government. A recent reminder is issued in this reference vide Ministry's letter F.NO.5-5/2010-EE-6 dated July 19, 2013.

- Majority of the school were using firewood as fuel. There was smoke due to these chullahs creating a hazard for not only the cooks but also leads to thick blackening of walls. **It is imperative that all the kitchen sheds incorporate smokeless chullahs in the design, which use lesser wood fuel as well and maintain cleanliness of the shed. Funds for advanced Chulha may be provided by the concerned Ministry of the Government of India initially, however full efforts should be ensured to provide LPG in all schools.**
- .It was observed that in 13 schools out of 45 eating plates were insufficient. Children bring plates from their home for eating mid-day meal.

- It has been observed that Dining hall is not available in most of the schools ,there is no proper space for sitting. Mid-day meal is being served in classrooms and open spaces.
- Only 18% of school has the facility of safe drinking water with piped water supply. Most of the schools are either dependent on the natural resources nearby or purchase water for daily use. This may hamper cooking of meals.
- Toilet facilities are available in most of the schools, but in 18 schools there are no separate toilets for boys and girls. Toilets were badly maintained in most of the schools because of water scarcity.
- Fire extinguishers were available in very few of the schools.

## 8 Appointment of cook cum helpers for preparation and serving of meals to the children

As per State Governments record 4576 Cooks for Primary & Upper Primary have been engaged for running MDM programme in the State during 2012-13. As per GoI Guideline the norms for engagement of Cooks cum Helpers are as follows.

SI No	Enrolment	No. of Cooks eligible
1	School having 1 - 25 Students	1
2	Above 26 – 100 Students	2
3	Every addition of 100 students	1 Additional beyond 100 and above

### Categorization of cook cum helpers

	SC	ST	OBC	Minority	Others	Total
<b>Male</b>	31	35	20	12	70	168
<b>Female</b>	187	2369	465	107	1280	4408
<b>Total</b>	<b>218</b>	<b>2404</b>	<b>485</b>	<b>119</b>	<b>1350</b>	<b>4576</b>

*Data: AWP& B 2013-14*

It is revealed from the above table that nearly 96% of the engaged cook cum helpers are females and most of them belong to SC/ST/OBC category.

District wise details of engagement of cook cum helpers is shown in the following table

Name of the District	Category of cooks				Total
	SC	ST	OBC	Others	
Imphal West	26	28	137	302	503
Senapati	0	784	0	68	852

The primary role of the cook cum helpers is to be aware of the objective intentions and cook quality food according to the quantity norms. Unfortunately none of them has been trained till date. They are also responsible for rationale utilisation of the cooking cost in adding the other required components like fuel and other preparations to be served with rice. Cooks cum helper are expected to maintain the hygiene and sanitation standards in preparation and serving of the food which is found to be very poor. Since most of the schools inspected by the team do not have a drinking water facility in their compound, the cooks had to cater to this chore as well. Except for few schools which uses gas stove, most of the schools commonly uses fire wood for cooking thus making the preparatory process more tedious. Interaction with cooks on their grievances centres around delay and irregularity in payment and they feel that they are underpaid.

#### Observation:

- It was observed that in some of the visited schools, less number of Cook-cum-helpers have been engaged than the required number as per norms related with enrolment of children.
- The major area of concern is the payment of honorarium to cook cum helpers. It has been found that there is delay in this regards. In all of the visited schools they have been paid upto March 2013. Unfortunately most of them reported that before that they had been paid during October/ November 2012. Therefore the delay in payment of cook cum helpers resulted from 3 months to 6 months.
- In some of the visited schools no record of the payment to cook cum helpers was available which created problem in understanding the actual position of payment to cook cum helpers.

## 9. Availability of dedicated staff for MDM at various levels

Current Staff position for implementation of MDM in the State, District and Zonal level is shown in the following table:

Sl. No	Designation	Working Under MDMS			
		State Level	District Level	Zonal Level	Total
<b>A</b>	<b>Regular Employee</b>				
1	Nodal Officer	1	0	0	1
2	MDM – in – Charge	4	0	13	17
3	UDC	1	0	0	1
4	LDC	1	0	13	14
5	Grade IV	1	0	13	14

State Government officials informed that there is shortage of staff in all level for proper implementation of MDM. The main problem faced at the district and Zonal level is the shortage of computer data entry operators and account personnel. For proper functioning of the programme all the vacant position (if exists) should be fulfilled on priority basis.

According to the official there is an apparent lack of human resources to improve the frequency of monitoring the MDM. These also necessitate the importance of involving the community to assist at the local level both in terms of improving quality and also towards transparency and accountability. Such partnership would hence be constructive and supportive of MDM scheme to foster the objectives towards improving health and increasing enrolments.

## 10 Review the maintenance of records at the level of schools /cooking agency

Maintenance of the records at School level is a cause of major concern in Manipur. It has been observed that feeding register, stock register of food grains, cash book, SMC inspection register are not maintained properly in the schools. Even the entry in the attendance is not regular and found to be incorrect when team calculated it from separate class wise registers. In Most of the schools, Stock register and cash book were written up to March, 13 only or entry was made haphazardly. Even though, record was available in some schools, it was not verified by the Headmaster. It was found that SMC`s registers are also not maintained properly, precisely to say that last entry was of April, 2012. There are no discussions on the Mid-day Meal in the committee meeting. In most of the schools, not a single meeting is held for the year 2013-14.

**Mission recommends that record should be maintained properly on daily**

**basis and there must be clarity in entering data with regard to total no. of students present and students availing the MDM for the day.** It was observed that head masters and teacher

are not aware of the basic information about the record maintenance of the stock register and cash book and they are often dependent on the Districts officials for the entries in registers or they are entering the wrong data in the records. **Mission strongly recommends that more and more capacity building program must be conducted for the headmasters and teachers of the schools for the successful implementation of the program.** It was also stressed that the

issue of tasting the food by the teacher is absolutely critical. The MDMS guidelines in this regard should be strictly followed. The teacher should keep a record of having tasted food in a register, to be maintained for the purpose. It could be further strengthened by ensuring that one of the SMC members should also taste the food on a rotation basis along with one of the teacher's before it is distributed to the children. .

Particulars	Quantity of rice received	Date	Quantity of rice Utilised	Balance
1. Opening Balance (KG)	1230		1 x 1307	
2. Quantity Received (KG) for the month.	1230		= 1307 kg	

Figure 3 Entries are not done for April, 1 in stock register

Particulars	Quantity of rice received	Date	Quantity of rice Utilised	Balance
1. Opening Balance (KG)	1230		1 x 1230	
2. Quantity Received (KG) for the month.	1230		= 1230 kg	

Figure 2 Incomplete entry in register

**11 Payment of cost of food grain to FCI**

As per guidelines issued by the MHRD, GOI, the cost of lifted foodgrains is paid directly to the Area Manager, FCI, Imphal by the State Government after food grain lifting statement received duly certified by the Zonal Education Officers . Bills are paid on a quarterly basis to FCI.



The status of payment of food grains to FCI for the FY 2012-13 is shown below:

Stage	Bill claimed by FCI (in Rs. Lakh)		Payment to FCI (in Rs. Lakh)	
	Quantity	Amount	Quantity	Amount
Primary	3297.409	186.30	3297.409	186.30
Up. Pry	961.727	54.34	961.727	54.34
TOTAL	4259.136	240.64	4259.136	240.64

As per the information provided by the State Government, 100% of the bills have been paid during the financial year 2012-13.

## 12. Involvement of the community in implementation of the MDMS program

In order to improve upon any existing system the involvement of the community participation becomes imperative. The existing guidelines of the School Managing and Development Committee also states the mandatory involvement of ten parents for every school.

During the visit by the JRM team it has been observed that there were hardly any inspection records in the schools which made it difficult to explain whether the importance of a functional SMDC was ever explained to the school head teachers. Kayinu Primary School, Senapati District was the lone school which maintained inspection register but there was not even a referring mention on SMDC or MDM. In general, there was a lack of clarity on the objective of MDM scheme and its relevance in promoting education among the poor population. It is also interesting to note that even the teachers are not aware of the year of implementation and often the head teacher claims to be a recent replacement, thus spelling ignorance on the past records of this scheme. This speaks volumes about the whole lack of transparency at every level where the higher ups have not insisted on any form of accountability in the past.

JRM Team also found schools with partial community support resulting in convergence with other schemes. For instance in Karong Bazar Primary School, a spacious proper kitchen was built through the MNREGS. Goma Devi High School and Bishnual Subodhni Hindi School were exceptional exemplary both in terms of a functional SMDC and how that enhance the transparency of all programmes including MDM in the school. Notably the SMDC have also built

a spacious Kitchen and two extra class rooms. These findings clearly indicate the difference/success wherever the community participation is pooled in.

According to official records, there is an existence of SMDC in all the government schools and they seem to have complied to all the expected norms of submissions. Whereas the inspection at the school level found major variations. SMDC were mostly nonexistent and sometimes merely in records to fulfill the criteria required for accessing both MDM and SSA entitlements without revising their membership since inception. SMDC compositions were incorrect and some are found to be random names without any adherence to the guidelines. Members were not aware of their inclusion in the SMDC and had never participated in the discussions as SMDC members. SMDC meeting minutes were inconsistent and MDM was hardly discussed beyond the authorization of accounts to the head teacher. Appointment of cooks were rarely reflected in the resolutions and there was absolutely no mention on frequency and quality of MDM. Most schools do not maintain SMDC records.

### **13. Management Information system**

Government of India has already launched MDM MIS portal in collaboration with NIC for the data entry of the major indicators related to MDM. In this connection various trainings and workshops have also been conducted from time to time. Annual and Monthly data entry has been made mandatory for all the districts. It helps the State and District administration to get proper information about MDM implementation at the School level.

**Annual Data Entry**

District wise annual data entry status is given below for the year 2012-13 and 2013-14 is given below:

**Annual Data Entry 2012-13:**

S. No.	District	Total Schools	Completed(Saved)	Pending	% Completed
1	BISHNUPUR	213	213	0	100
2	CHANDEL	226	226	0	100
3	CHURACHANDPUR	361	361	0	100
4	IMPHAL EAST	411	411	0	100
5	IMPHAL WEST	372	372	0	100
6	SENAPATI	539	539	0	100
7	TAMENGLONG	277	277	0	100
8	THOUBAL	341	341	0	100
9	UKHRUL	285	285	0	100
	Total	<b>3025</b>	<b>3025</b>	<b>0</b>	<b>100</b>

Source: [www.trgmdm.nic.in](http://www.trgmdm.nic.in)

accessed on 29 July '13 at 10:46 a.m.

It is appreciable that all the districts had completed the Annual data entry for the year 2012-13 into the MDM-MIS web portal for all the schools within the time

**Annual Data Entry 2013-14:**

S. No.	District	Total Schools	Completed(Saved)	Pending	% Completed
1	BISHNUPUR	213	0	213	0%
2	CHANDEL	226	0	226	0%
3	CHURACHANDPUR	361	0	361	0%
4	IMPHAL EAST	411	0	411	0%
5	IMPHAL WEST	372	0	372	0%
6	SENAPATI	539	0	539	0%
7	TAMENGLONG	277	0	277	0%
8	THOUBAL	341	0	341	0%
9	UKHRUL	285	0	285	0%
	Total	<b>3025</b>	<b>0</b>	<b>3025</b>	<b>0%</b>

Source: [www.trgmdm.nic.in](http://www.trgmdm.nic.in)

accessed on 29 July '13 at 10:14 a.m.

For the year 2013-14, all the districts have not yet started the Annual data entry into the MDM MIS web portal till July 2013. Although the NIC has already replicated the information for 2013-14 from the data base of 2012-13. The District/ Zonal Offices just need to check the data and to make necessary corrections (if required) and finally has to freeze/ save the data for proceeding further.

### **Monthly Data Entry**

District wise Monthly data entry status is given below for the year 2012-13 and 2013-14 is given below:

#### **Monthly Data Entry 2012-13 (% completed):**

S. No	District	Total Schools	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan' 13	Feb' 13	March'13
1	BISHNUPUR	213	100	100	100	100	100	100	100	100	100	100	100	100
2	CHANDEL	226	100	100	100	100	100	100	100	100	100	100	100	100
3	CHURACHANDPUR	361	100	100	100	100	100	100	100	100	100	100	100	100
4	IMPHAL EAST	411	100	100	100	100	100	100	100	100	100	58	58	58
5	IMPHAL WEST	372	100	100	100	100	100	100	100	100	100	100	39	39
6	SENAPATI	539	100	100	100	100	100	100	100	100	100	100	100	100
7	TAMENGLONG	277	100	100	100	100	100	100	100	100	100	100	100	100
8	THOUBAL	341	100	100	100	100	100	100	100	100	100	100	100	100
9	UKHRUL	285	100	100	100	100	100	100	100	100	100	5%	5%	4%
	<b>Total</b>	<b>3025</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>85</b>	<b>78</b>	<b>78</b>

Source: [www.trgmdm.nic.in](http://www.trgmdm.nic.in)

accessed on 29 July '13 at 10:59 a.m.

It is evident from the table that all the districts have completed 100% monthly data entry into the MDM MIS web portal up to December 2012. But from January 2013 onwards the percentage of Monthly data entry is gradually decreasing and it is 78% completed up to the month of March 2013. The data entry status from January 2013- March 2013 is found to be poor in the districts like Ukhrul (5%), Imphal West (39%) and Imphal East (58%).

Monthly Data Entry 2013-14 (% completed):

S. No.	District	Total Schools	April	May	June	July
1	BISHNUPUR	213	0%	0%	0%	0%
2	CHANDEL	226	0%	0%	0%	0%
3	CHURACHANDPUR	361	0%	0%	0%	0%
4	IMPHAL EAST	411	0%	0%	0%	0%
5	IMPHAL WEST	372	0%	0%	0%	0%
6	SENAPATI	539	0%	0%	0%	0%
7	TAMENGLONG	277	0%	0%	0%	0%
8	THOUBAL	341	0%	0%	0%	0%
9	UKHRUL	285	0%	0%	0%	0%
	<b>Total</b>	<b>3025</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>

Source: [www.trgmdm.nic.in](http://www.trgmdm.nic.in)

accessed on 29 July '13 at 10:15 a.m.

All the districts have not yet started the monthly data entry into the MDM MIS web portal which is a major area of concern for proper monitoring of the scheme. Irregular data entry into the MDM MIS web portal will lead to problem during preparation and submission of AWP& B 2014-15.

Timely data entry into the MDM MIS web portal needs continuous follow up at all Level from **State to District** & Simultaneously from **District to Block** . Timely data entry (Latest by 5<sup>th</sup>. of Next Month for monthly data entry) will help the State Government and MHRD, Government of India to properly monitor the scheme and Management & Planning of this Scheme.

#### 14. Findings of the Monitoring Institutions

41 Social Science Institutions have been engaged as Monitoring Institutions (MIs) for carrying out the monitoring of the MDM scheme in various State/UTs of the country. These 41 MIs are submitting half yearly reports based on the Terms of Reference signed between the Government of India and Monitoring Institutions.

Manipur University is the Monitoring Institute for monitoring of the MDM scheme in Manipur. They have covered Imphal West district during the period 1<sup>st</sup> October – 31<sup>st</sup> march 2012 and Senapati district during the period 1<sup>st</sup> April 2012- 30<sup>th</sup> September 2012. The reports have already

been shared with the State Government for taking corrective measures. The major findings of the report is mentioned below:

Report of Imphal West District:

- **Regularity serving of hot cooked meal:** 100% of the total sample schools visited, were regularly serving hot cooked meals. But is only for 3 (three) months i.e. October, November and December.
- **Regularity of Delivering food grains to School level:** 100% of the sample schools visited are having the problems of delayed of delivering food grains to schools.
- **Regularity of Delivering Cooking Cost to School level:** 100% of the sample schools visited are delayed in delivering cooking cost to school level which was paid through banking channel.
- **Variety of Menu:** 100% of the total sample schools visited, does not displayed its weekly menu at a place noticeable to community.
- **Deciding the Menu:** In majority of the sample schools visited decided the menu by the Head Master/Head Mistress
- **Quality of food grain:** 60% of the sample schools visited have good quality food grain, 15% of the sample schools visited have poor quality food grain, whereas 25% of the sample schools visited have average quality of food grain.
- **Quantity of food grain:** 75% of the sample schools visited have adequate quantity of food grains, whereas 25% of the school have inadequate quantity of food grains.
- **Health Card Status:** 2.5% of the sample schools maintained health card i.c Khamlangba Jr H/S, whereas majority of the sample schools did not maintain health card i.e 97.5% schools but children are not given micro nutrients (Iron folic Acid, Vitamin, A-dosage) and de-worming medicine and also no health check-up.

- **Status of Cook:** 95% of the total sample schools visited, had the facility of cooks in the schools and they belong to the general category, whereas 5% of the sample schools visited had the facility of cook in the schools and they belong to the OBC category Most of the cooks belong to the under privileged class.
- **Availability of Kitchen Shed-Cum-Storeroom:** 87.5 of the sample schools visited have kitchen Shed-Cum-Store, but semi-pucca and Kuccha Kitchen sheds, whereas 32.5% of the schools do not have kitchen Shed-Cum-Store rooms facilities. The food grains are stored in the house of Head Master/Head Mistress/Cooks' house/School office room etc.
- **Availability of water for cooking and drinking purposes:** 67.5% of the sample schools visited used tap water for cooking and drinking purposes, 17.5% of the sample schools visited used river water 7.5% of the sample schools visited used hand pump water.
- **Availability of Utensils of MDM programme:** 67.5% of the sample schools visited have adequate utensils for cooking and serving the food, whereas 32.5% of the sample schools visited have inadequate utensils for cooking and serving the food.
- **General Impression of the School Environment:** 62.5% of the sample schools visited have no fencing around the school campus, 37.5% of the sample schools visited have fencing around the school campus, whereas 97.5% of the sample schools visited have health hazard to the students because of the poor condition of the environment, 2.5% of the sample school have hygiene and safety environment.
- **Community Participation and Awareness:** 52.5% of the sample schools visited have proper Community participation and awareness about the MDM Programme, whereas 47.5% of the sample schools visited have no community participation and awareness about MDM programme.
- **Number of Cooks:** 37.5% of the sample schools visited have engaged 1(one) cook for cooking and serving MDM, whereas 62.5% of the sample schools visited have engaged 1 cook and 1 helper for cooking and serving MDM.

- **Supervision and Inspection of MDM by Officers:** 52.5% of the sample schools visited were inspected by officers once in a year, 15% of the sample schools visited were inspected by officers twice in a year, whereas 32.5% of the sample schools visited were not inspected by the Officers.

Report of Senapati District

- **Regularity in serving Meal:** 55% of the schools are unable to serve MDM regularly due to untimely release of the food grains to the schools.
- **Regularity in Delivering Foodgrains to School Level:** 100% of the sample schools visited by the M.I. did not receive foodgrains regularly. Hence, MDM could not be served as per the stipulation of the scheme. One of the reasons for delaying in delivering of foodgrain is bad road communication system and distance of the schools from the district Headquarter.
- **Regularity in Delivering Cooking cost to school level:** none of the sample schools visited received MDM cooking cost in time. As a result of this situation, Headmasters of all the sample schools faced a lot of problems in the arrangement of MDM, even if they wanted to maintain regularity in serving MDM.
- **Social Equity:** In all the sample schools visited, there is no gender or caste or community discriminations in cooking or serving or making seating arrangement for the purpose of MDM.
- **Variety of Menu:** 90% of the schools did not display their weekly menu at a place noticeable to community, whereas, 10% of the schools displayed weekly menu at a place noticeable to the local community. The 4(four) Schools under these category are- Taphou Naga UJB School, Tungjoy Jr. H/S, Sadar Hills Model Jr. H/S and Mao P/S. In 75% of the sample schools, the headmasters decide the menu for MDM, whereas in 25% of the schools the headmaster and cook decide the menu jointly.
- **Quality and quantity of food grains:** 82.5% of the sample schools received good quality foodgrains, 15% schools received satisfactory quality foodgrains, whereas 2.5% school received poor quality foodgrains. 80% of the sample schools visited received inadequate



quantity of foodgrains, whereas 20% of the schools received adequate quantity of foodgrains in Senapati District.

- **Coverage under the School Health Programme:** None of the schools visited maintained School Health Cards for children under the National Rural Health Mission undertaken by the Department of Health and Family Welfare, Govt. of Manipur. None of the schools have also given micronutrients (Iron, Folic Acid, Vitamin – A dosage) and de-worming medicine periodically.
- **Status of Cooks:** All the sample schools had the facility of cooks in the school. But out of 40 sample schools, 35% schools have the facility of cooks and helpers as per Govt. of India norms, whereas 65% of the schools have no facility of helpers. In 100% of the sample schools, the cooks are belonging to ST category as the district is predominantly ST District of Manipur.
- **Infrastructure:** 60% of the sample schools visited have no kitchen sheds, whereas 40% of the schools have kuccha kitchen. Most of the kitchens were in poor condition. None of the schools have store-rooms in the kitchen. However as per the report of the Government of Manipur, there is an excess of 99 kitchens in the state. 20% of the sample schools visited have adequate utensils for cooking and serving food, whereas 80% of the sample schools are not having adequate utensils for cooking and serving food. 57.5% of the sample schools visited used stream water for cooking and drinking purposes, 32.5% of the sample schools used pipe water for cooking and drinking purposes, 7.5% of the sample schools used well water, 2.5% of the sample school used the pond water. 100% of the sample schools visited used firewood as fuel for cooking purposes.
- **Safety and Hygiene:** 45% of the sample schools visited are having the safety and hygienic environment for the children, whereas 55% of the sample schools are not having safety and hygienic environment for the children.
- **Community participation:** In 77.5% of the sample schools visited, SMC members are looking after in the form of supervision and monitoring of the MDM programme for its effective implementation, whereas in 22.5% of the sample schools, SMC members are not properly looking after the MDM programme implementation to suggest remedial

measures for improvement. It is due to lack of awareness of the community. Actually SSA programme will have to be implemented effectively with community participation.

- **Inspection and Supervision of MDM programme:** 70% of the schools have been inspected for ascertaining the work for actual implementation of MDM programme by Block level officials, whereas 30% of the schools have not been inspected by Block level officials.
- **Impact:** 87.5% of the schools have the benefit of improvement in enrolment and attendance of children in schools, whereas 12.5% of the sample schools improved the nutritional status of the children. None of the schools have the impact for improvement in general well being of the students.

All these reports and the findings of the Monitoring Institute have already been shared with the State Government by Government of India. The State Government may take corrective measures based on the findings of the MI for proper implementation of the MDM in the State.

#### **15. Additional information regarding implementation of MDM in Manipur**

- *District level meeting under the chairpersonship of the MP is required to be convened before 15th August 2013 for reviewing and monitoring the implementation of MDM in the district . A D.O letter in this regard has been issued by AS (EE-1) on 22nd July 2013 which has been uploaded on the MDM website as well.*

Notification will be issued immediately.

- *The Management structure for implementing the MDM beyond the district up to the school level have to be clearly specified and an order to this effect issued by the state government . Whether any order issued specifically indicate the duties and responsibilities of each management tier and the concerned individuals.*

Presently the scheme is being implemented by the SMDC concerned. An order with specific DOs and DONTs will be issued immediately.

- *Whether any order issued regarding the responsibility for the tasting of the MDM at the school level.*

No order in connection with the tasting of food before serving to the children issued however it is found that food has been tasted by the Head Master, teacher and Cook at the school level.

- *The status of non recurring funds released over last three years and the reasons for non spending Pendency status of the construction Kitchen cum stores ( district wise ). Also find out whether the new kitchen-cum- store being constructed are as per the design given by Mr Kabir Vajpayee. Also find out whether the state government/district administrations are promoting the kitchen gardens in schools and if so through what mechanisms/convergence.*

The funds for construction of 1889 KS is yet to be released by the State Government and the model of the shed is as per the design developed by the National Mission of Bamboo Application but not with the design of Mr. Kabir Vajpayee.

Normally some schools are maintaining kitchen garden and an order in this regard will be issued shortly.

- *The details of capacity building programs/ trainings for the management staff at all levels as well as the training of the cook cum helpers. Training schedule for the SMC members. Please provide the details of the Agencies and institutions involved in these trainings.*

Capacity building of School Head Master/Mistress in 8 against 9 districts have been completed. The training has been conducted by the State Level Officials. Training of Cook-um-Helper and SMDC is to be conducted shortly.

- *Source of supply of pulses, condiments and oil for cooking for MDM. Whether any guidelines have been issued for procurement of these items from identified state agency.*

No order in this regard has been issued till date.

- *Generation of Awareness for MDM Scheme - the modality for creating awareness ( media, publicity campaign, posters , Banners etc)*

MDM awareness programmes are done through print and electronic media. Kiosk, Hoardings, jingles etc. are also used.

- *Details of the SSMC meeting held for the last three years . Get the minutes of these meeting as well.*

Minutes will be provided.

- *Details of the centralized MDM Kitchens and the Agencies operating them.*

Centralized MDM Kitchen is not adopted in the State.

- *Engagement of Independent Agency for checking the food samples . Guidelines and reports of such sampling/ nutrition analysis carried out.*

It is not carried out till date.

- *Emergency/contingency plans in place for tackling adverse events like the recent incident in Chhapra in Bihar.*

Appropriate steps shall be initiated for the contingency plans and the same was discussed in the recent State level meeting held on 19th July 2013 chaired by the Principal Secretary[Edn/S], Government of Manipur.

- *Safety guidelines for storage of food items and raw materials.*

An order will be issued shortly.

- *Grievance redress mechanism.*

District Level Monitoring Committee shall be more effective. Helpline number **1800-345-3820** exclusively for MDM is opened during office hours at the State Level to address any grievances from any corners of society. Moreover, communication gap between State and School level would be addressed at the earliest through SMS.

- *Details of state level and district level meetings held in the last two years to discuss the key issues relating to the implementation of the MDM scheme in the state .*

Regarding State Level Monitoring Committee meeting 3(three) meeting minutes are attached herewith for the last three years as Annexures. And about the meetings at district level, information is yet to be received from the district concerned.

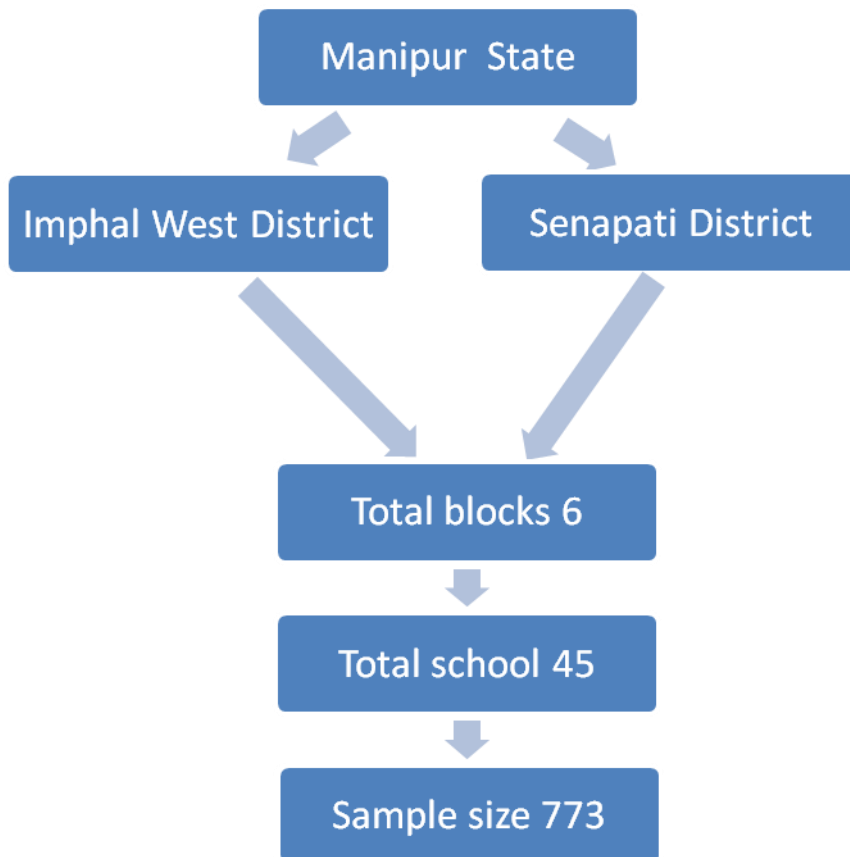
## NUTRITIONAL ASSESSMENT OF THE CHILDREN

### Methodology

As per the term of reference to assess the nutritional status the following methodology was observed.

### Sample selection

Two districts i.e. Imphal west and senapati were selected as the study area.out of these two districts 45 schools were taken which had total enrollment of 6,387 children. Sub sample of school children comprised of 359 boys and 414 girls which amount to 12.1 per cent of total enrollment. Out of 773, 423 were from primary school and 350 were from upper primary school. To assess nutritional status of the children the information was collected on anthropometric measurements, clinical assessments and dietary pattern of children.



### **Anthropometric assessment**

Measurements of anthropometric parameters viz. body weight, height, mid upper arm circumference (MUAC), were recorded for school children as per the following methods.

#### **Body weight**

Body weight (kg.) indicates the body mass and is a composite of all body constituents like water, minerals, fat, protein, bone etc. For the present study, body weight (kg) was taken by personal weighing machine with the maximum capacity of 120 kg and the minimum division of 0.5 kg. The following precautions were taken to measure body weight (kg.) The school children were instructed to be without shoes. All the school children were in the school uniform. School children were asked not to lean against or hold any support, while the weight (kg.) was being recorded (Gibson, 1990).

#### **Height**

Height (cm.) of the school children was taken by anthropometric rod. School children were asked to stand erect on a leveled surface, without shoes, looking straight with heels together and toes apart. The anthropometric rod was placed behind the school children in the centre of the heels perpendicular to the ground. The investigator standing on left side of the school children held firmly the chin of the school children with his/her left hand and the occiput of the school children with his right little finger to maintain the Frankfurt plane horizontal (an imaginary line joining the tragus of the ear and infra orbital margin of the eye). The moving head piece of the anthropometric rod was placed in the sagittal plane over the head of the subject applying a slight pressure to reduce the thickness of hair. The readings were taken when the anthropometric rod was still in position (Gibson, 1990).

#### **Mid upper arm circumference (MUAC)**

MUAC (cm.) indicates the status of muscle development. For the present investigation, MUAC was taken using fiber glass tape with minimum count of 0.1 cm. The mid point between the tip of the acromion of scapula and the tip of the olecranon process of the (fore arm bone) ulna, with the arm flexed at the elbow at right angle; was marked with a marker pen. Arm of subject was hanged freely and the fiber glass tape was gently, but firmly placed embracing the arm without exerting too much pressure on the soft tissues. The reading was taken to the nearest millimeter, with the tape still in position (Gibson, 1990).

## BMI

Body Mass Index was calculated using weight in Kg dividing it by height in meter square. The nutritional status of children was assessed on the basis of BMI Z-score classification given by WHO:

- ≥Median -2SD to +< 1SD : Normal**
- Median < -2SD TO > -3SD : Moderate undernutrition**
- >Median -3SD : Severe Undernutrition**
- Median ≥ +1SD to < +3SD : Overweight**
- ≥ +3SD : Obesity**

## Clinical survey

Clinical survey was conducted to observe clear cut visible signs of protein deficiency, vitamin A deficiency, B complex deficiency, ascorbic acid deficiency, iodine deficiency disorders and iron deficiency anaemia. The results are presented in the tabular form.

## Diet pattern

The students were asked for their dietary pattern that is they informed about what they have taken in the morning before coming to school during the school and after the school till they sleep. A 24 hour dietary recall method was employed for the previous day. The information was further placed as general dietary pattern and food items consumed.

**Calculation of nutritive value of MDM meal** One serving of MDM meal was collected, weighed and converted to raw ingredients to determine the nutritive value.

## Observations

The mean anthropometric measurements of boys and girls from primary and upper primary schools visited are presented in table 1 and table 2.

**Table 1: MEAN ANTHROPOMETRIC MEASUREMENTS OF BOYS**

AGE	Ht. (cm)	Wt. (kg)	BMI	MUAC. (cm)
6 yrs	108.4±9.65	18.28±2.38	13.564±6.16	15.88±1.35
7 yrs	118.82±7.69	16±3.72	15.04±2.58	15.08±1.91

8 yrs	117.99±9.47	21.69±2.68	15.69±2.1	16.21±2.09
9 yrs	124.81±10.91	25.21±4.6	16.3±2.98	17.82±1.85
10 yrs	128.69±9.6	27.26±4.9	16.48±2.47	18.2±2.14
11 yrs	135.61±9.44	30.81±6.40	16.65±2.1	19.55±2.44
12 yrs	141.16±9.42	34.95±5.86	17.53±2.47	19.58±2.3
13 yrs	144.28±10.2	37.84±6.99	18.15±2.65	21.12±2.03
14 yrs	153.58±8.09	42.12±7.48	17.78±2.32	21.71±2.08
15 yrs	157.33±4.2	46.4±5.5	18.75±2.1	23.79±2.62

**Table 2: MEAN ANTHROPOMETRIC MEASUREMENTS OF GIRLS**

Age	Ht. (cm)	Wt. (kg)	BMI	MUAC. (cm)
6 yrs	111.33 ±7.9	19.16 ±2.76	15.56 ±2.7	16.04 ±1.54
7 yrs	112.13 ±12	20.1 ± 2.7	16.45 ±3.77	16.2 ±1.74
8 yrs	119 ±9.58	22.45 ±4.3	15.95 ±3.17	16.64 ±1.66
9 yrs	127.13 ±7.9	26.15 ±5.8	16.1 ±1.71	18.43 ±2.36
10 yrs	128.17 ±9.3	28.04 ±6.18	16.98 ±2.73	18.56 ±2.09
11 yrs	134.4 ±8.36	32.01 ±5.4	17.86 ±3.66	19.46 ±2.0
12 yrs	138.88 ±9.7	35.8 ±8.0	18.48 ±3.1	20.37 ±2.2
13 yrs	144.77 ±9.89	40.48 ±5.96	19.41 ±3.1	20.02 ±3.24
14 yrs	150.34 ±9.1	43.12 ±6.3	19.56 ±2.89	22.36 ±1.84
15 yrs	152.04 ±4.99	43.5 ±6.89	18.78 ±2.61	23.15 ±2.06

It was observed from table 1 and table 2 that both the genders had similar height till 11 yrs. From age 12 onwards height of boys was more compared to the girls. Gradual increase in weight was



observed in both boys and girls along with increase in age. Adolescence is a period of rapid growth and the age for this growth differs for boys and girls. Also age of attainment of maximum height and weight is different for boys and girls. Therefore, in comparison no common pattern is observed. BMI and MUAC has shown continuous increasing trend which is normal and expected. BMI in boys range from  $13.564 \pm 6.16$  to  $18.75 \pm 2.1$  and in girls ranged from  $15.56 \pm 2.7$  to  $19.56 \pm 2.89$ , which is within the normal range. MUAC of boys range from  $15.08 \pm 1.91$  cm to  $23.79 \pm 2.62$  cm and girls ranged from  $16.04 \pm 1.54$  cm to  $23.15 \pm 2.06$  cm.

Using BMI Z score prevalence of malnutrition among boys and girls from primary and upper primary school children was assessed and is presented in Table 3 and table 4 and Fig 1 and 2.

**Table 3: NUTRITIONAL STATUS OF BOYS**

AGE	SEVERLY MALNOURISHE D		MODERATELY MALNOURISHE D		NORMAL		OVER WEIGHT		OBESE	
	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
6 yrs	4	13.79	3	0.34	18	62.06	1	3.44	3	10.34
7 yrs	1	3.7	3	11.11	19	70.37	2	7.4	2	7.4
8 yrs	0	0	0	0	21	91.3	1	4.37	1	4.37
9 yrs	0	0	1	2.56	35	89.74	0	0	3	7.69
10 yrs	2	4.54	2	4.54	33	75	4	9.09	3	6.81
11 yrs	0	0	2	4.54	39	88.63	2	4.54	1	2.27
12 yrs	0	0	3	6.52	37	80.43	5	10.86	1	2.17
13 yrs	0	0	4	6.45	49	79	7	11.29	2	3.22
14 yrs	0	0	5	16.12	24	77.41	2	6.45	0	0
15 yrs	0	0	0	0	14	100	0	0	0	0
<b>Total</b>	<b>7</b>	<b>1.95</b>	<b>25</b>	<b>6.41</b>	<b>289</b>	<b>80.50</b>	<b>24</b>	<b>6.68</b>	<b>16</b>	<b>4.46</b>

**Table:4 NUTRITIONAL STATUS OF GIRLS**

AGE	SEVERLY MALNOURISHED		MODERATELY MALNOURISHED		NORMAL		OVER WEIGHT		OBESE	
	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
6 yrs	0	0.00	1	3.5	24	85.71	1	3.5	2	7.14
7 yrs	0	0.00	2	6.06	23	69.6	2	6.06	6	18.18
8 yrs	0	0.00	1	2.9	28	82.35	0	0.00	5	14.7
9 yrs	0	0.00	1	2.8	31	88.5	3	8.5	0	0.00
10 yrs	0	0.00	3	7.3	28	68.2	9	21.9	1	2.4
11 yrs	2	4.34	3	6.5	32	69.5	5	10.8	4	8.6
12 yrs	1	1.6	3	4.83	45	72.5	11	17.74	2	3.2
13 yrs	0	0.00	2	2.46	66	81.48	11	13.58	2	2.46
14 yrs	0	0.00	1	2.22	38	84.44	5	11.11	1	2.22
15 yrs	0	0.00	0	0.00	8	88.88	1	11.11	0	0.00
<b>Total</b>	<b>3</b>	<b>0.72</b>	<b>17</b>	<b>4.11</b>	<b>323</b>	<b>78.02</b>	<b>48</b>	<b>11.60</b>	<b>23</b>	<b>5.55</b>

The nutritional status of the children, both boys and girls are shown age wise from 6 to 15 yrs in both the cases it can be seen that majority of the children i.e. 80.50% and 78.02% of boys and girls respectively are falling in normal category. However, a small percentage of 6.41 (in boys) and 4.11 (in girls) are falling in the category of moderately malnourished. Severely malnourished children contribute only 1.95% and 0.72% of the total population in boys and girls respectively.

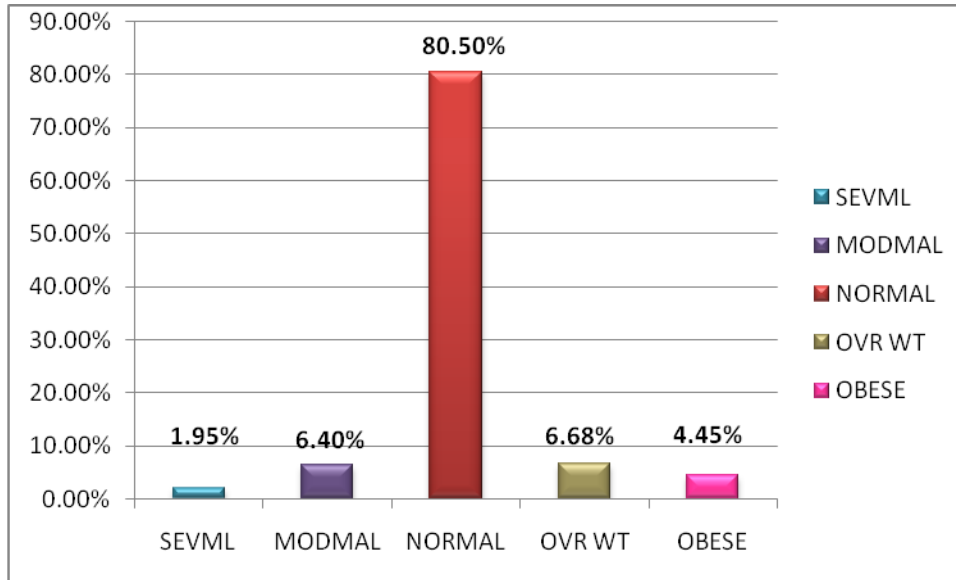


Fig1: Nutritional status of boys

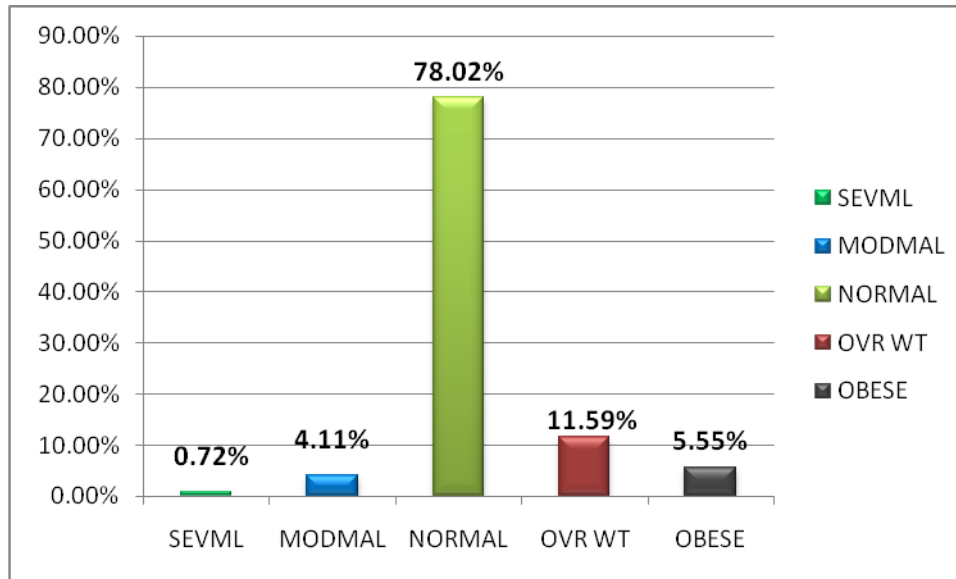


Fig2: Nutritional status of girls

### Clinical symptoms

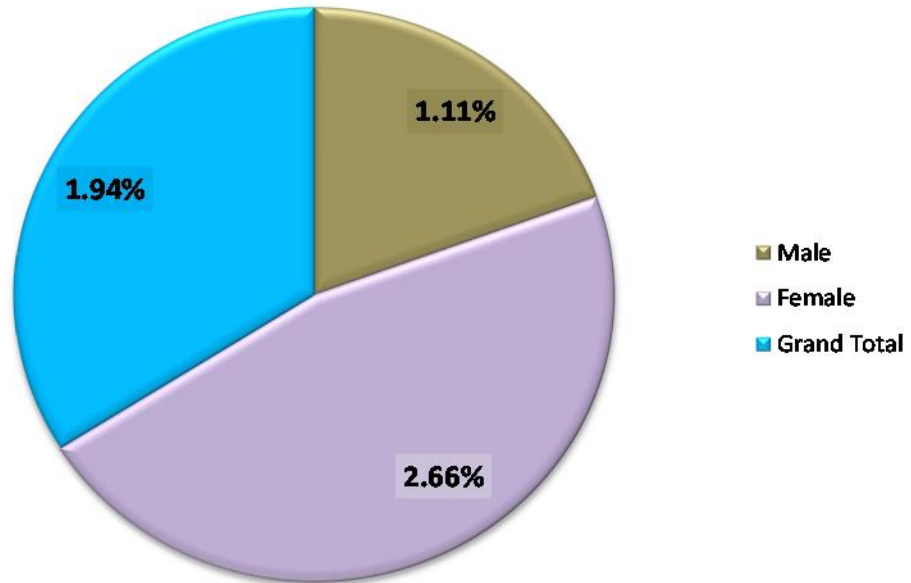
Observations of the assessment of clinical signs and symptoms of the children are presented in table 5 and fig. 3 to fig. 12

**Table 5: Clinical signs and symptoms of the children**

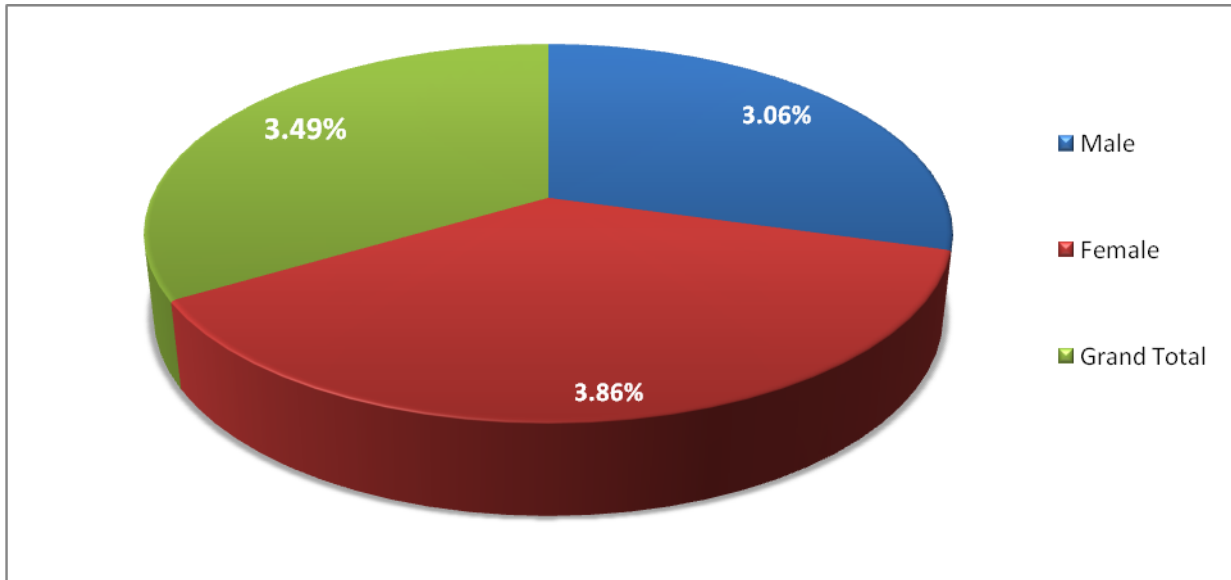
<b>Problems</b>	<b>Male</b>	<b>%</b>	<b>Female</b>	<b>%</b>	<b>Total</b>	<b>%</b>
Night blindness	4	1.11	11	2.66	15	1.94
Blurred vision	11	3.06	16	3.86	27	3.49
Bitot's spot	1	0.28	2	0.48	3	0.39
Corneal Xerosis	0	0	1	0.24	1	0.13
Mottled enamel	14	3.89	9	2.17	23	2.98
Cavity	66	18.38	69	16.67	135	17.46
Spongy bleeding gum	57	15.88	62	14.98	119	15.94
Angular stomatitis	10	2.8	10	2.4	20	2.59
Follicular Hyperkeratosis	2	0.56	1	0.24	3	0.84
Pellagrous dermatitis	0	0	7	1.69	7	0.9

- Night blindness was observed in 1.11% of male and 2.66% of female subjects (table 5 fig.3)
- Blurred vision was observed in 3.06% of male and 3.86% of female subjects (table 5 fig.4)
- Bitot's spot was observed in 0.28% of male and 0.48% of female subjects. (table 5 fig.5)
- Corneal xerosis was observed in 1 female subject comprising 0.24% of the total female population. (table 5 fig.6)
- Mottled enamel was found in 3.89% male and 2.17% female population. (table 5 fig.7)

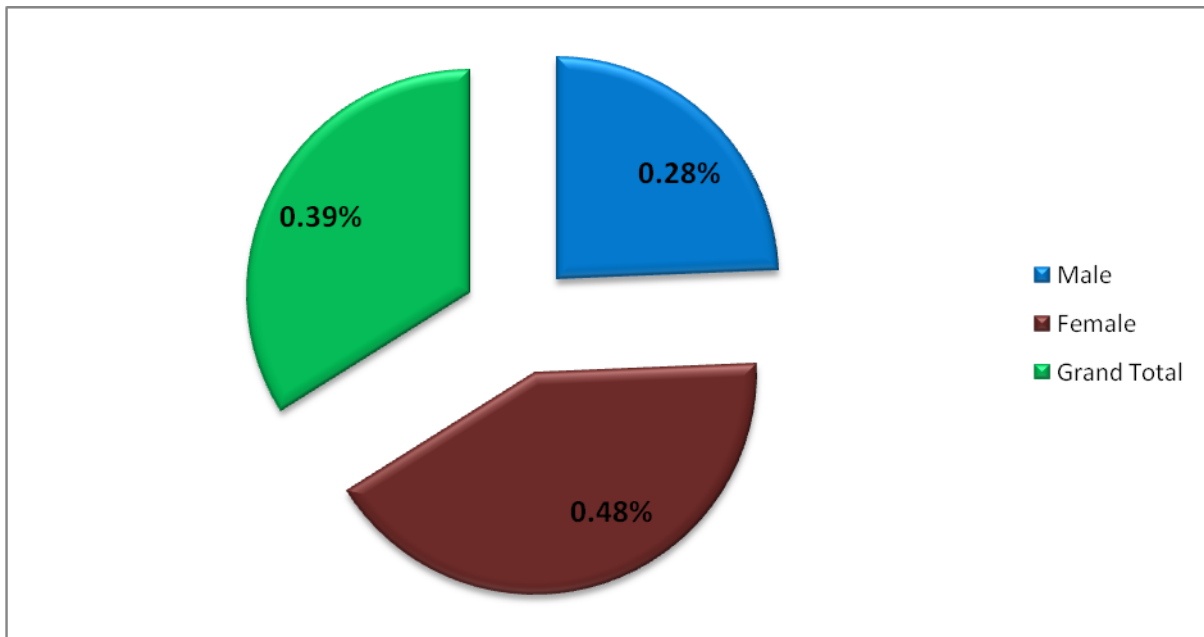
- Cavity was observed in 18.38% Of male and 16.67% of female population. (table 5 fig.8)
- Spongy bleeding gums in 15.88% male and 14.98% of female emphasizes poor oral hygiene coupled with ascorbic acid deficiency. (table 5 fig.9)
- Angular stomatitis was observed in 2.8% male and 2.4% female subjects indicating Vit B complex deficiencies. (table 5 fig.10)
- Follicular hyperkeratosis is observed in 0.56% of male and 0.24% of female subjects which could be due to low fat intake. (table 5 fig.11)
- Pellagrous dermatitis was observed in 1.69% of female population. (table 5 fig.12)



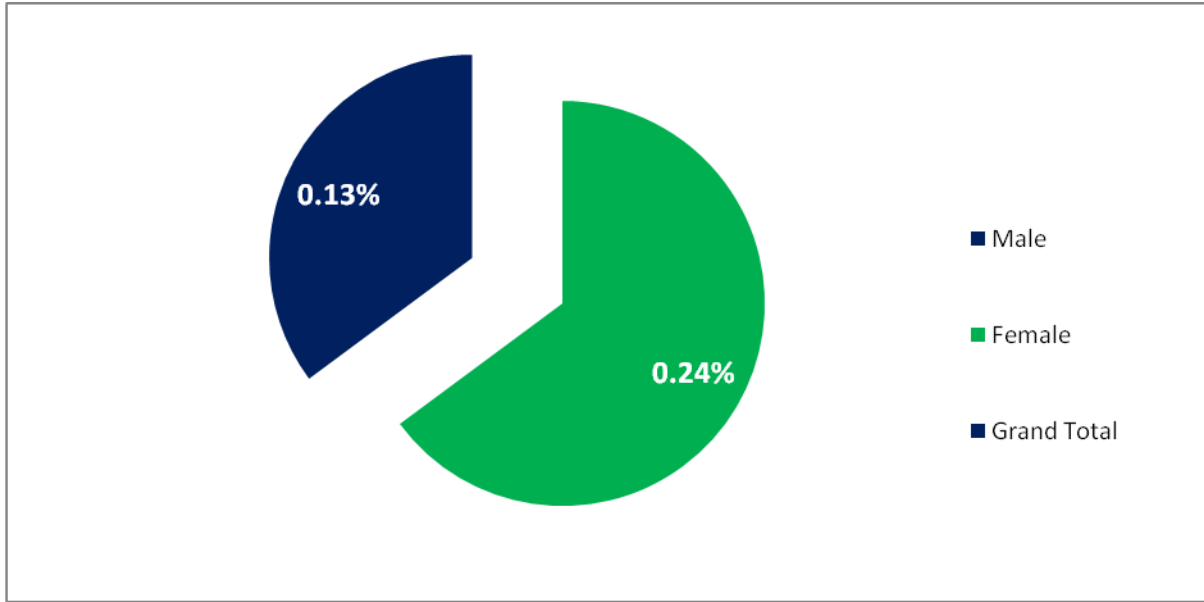
**Fig:3:** Prevalence of Night Blindness in children



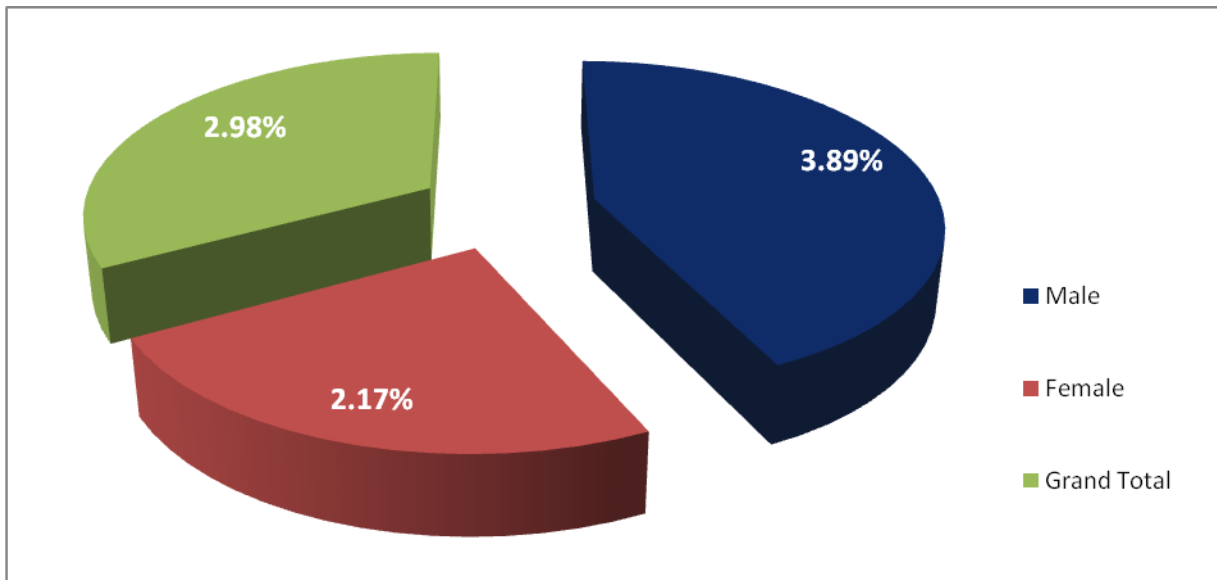
**Fig4:** Prevalence of Blurred vision in children



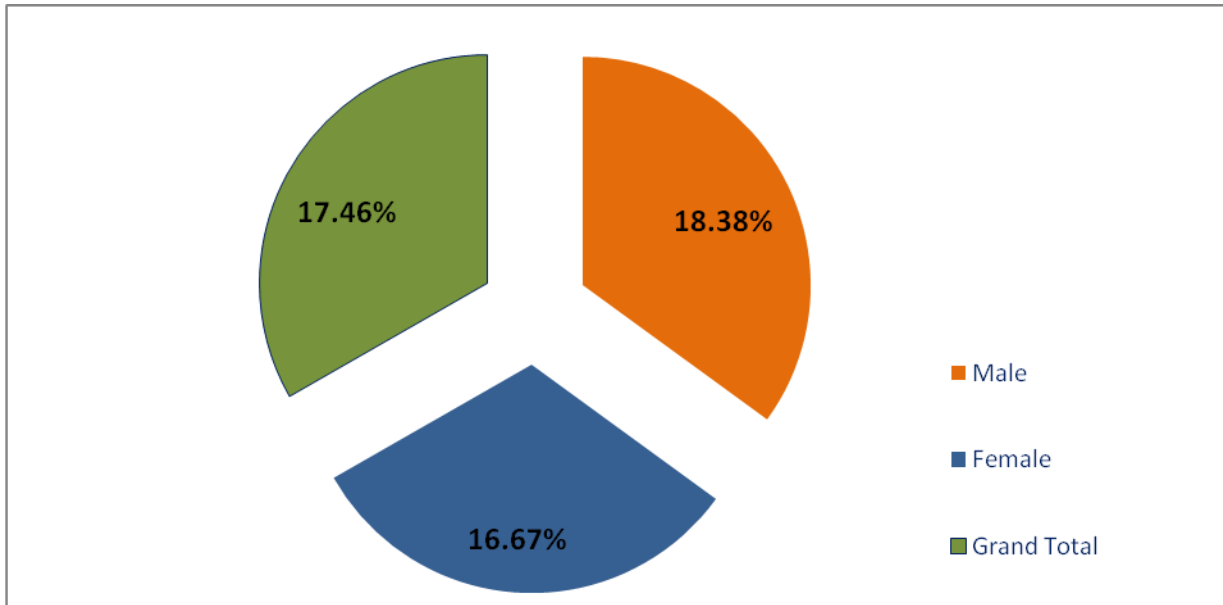
**Fig5:** Prevalence of Bitot's spot in children



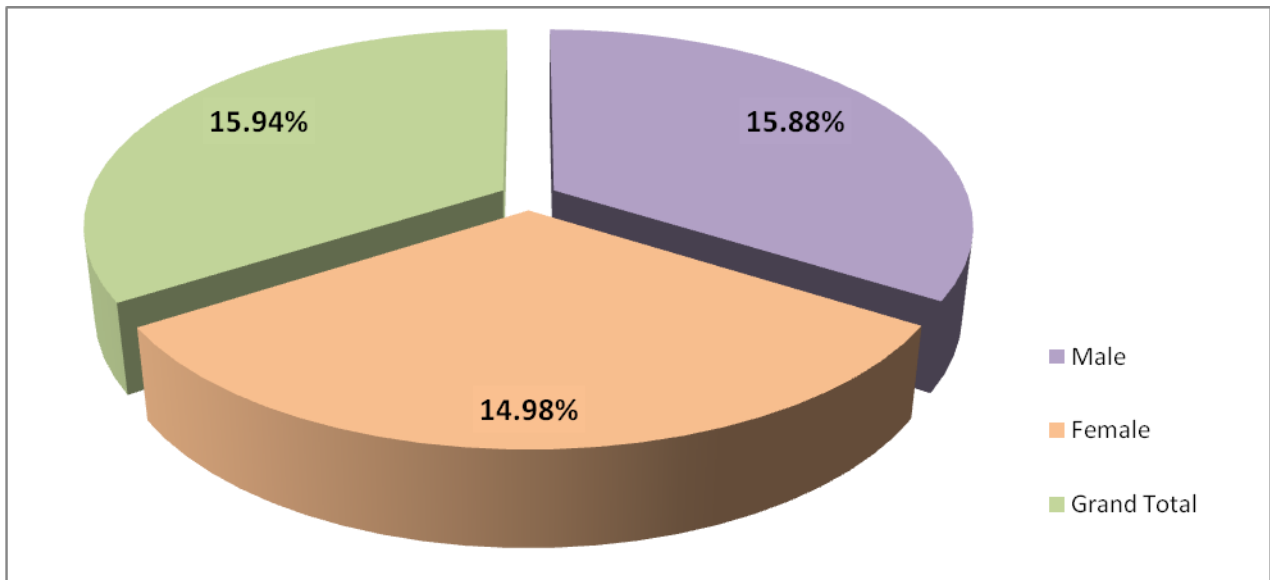
**Fig6:** Prevalence of Corneal Xerosis in children



**Fig 7:** Prevalence of Mottled Enamel in children

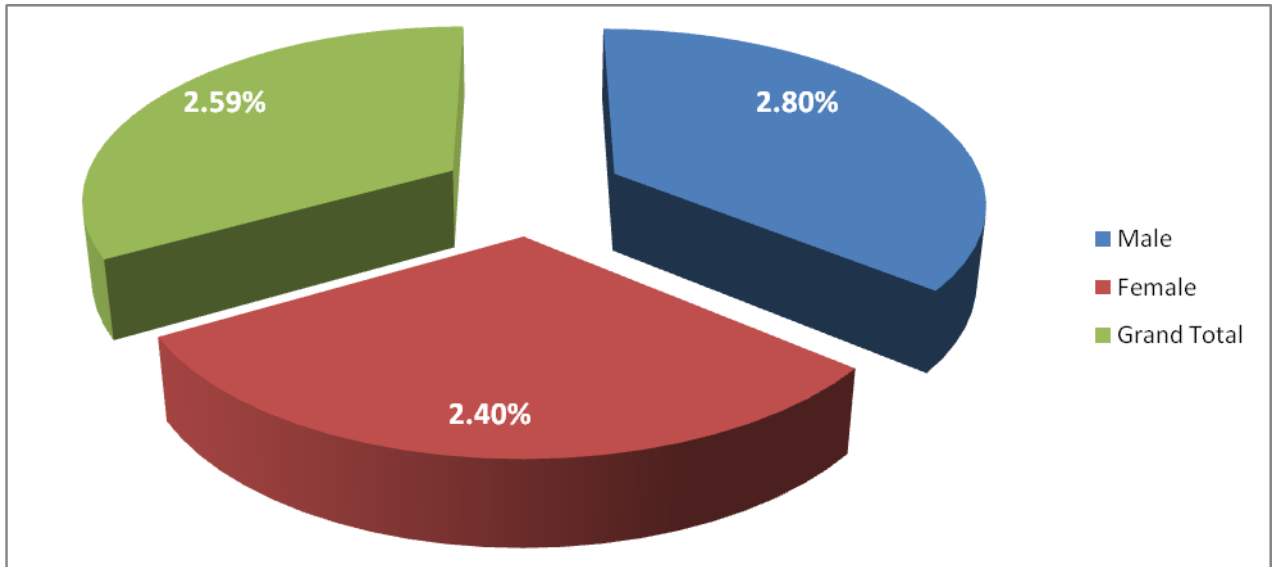


**Fig8:** Prevalence of Cavity in children

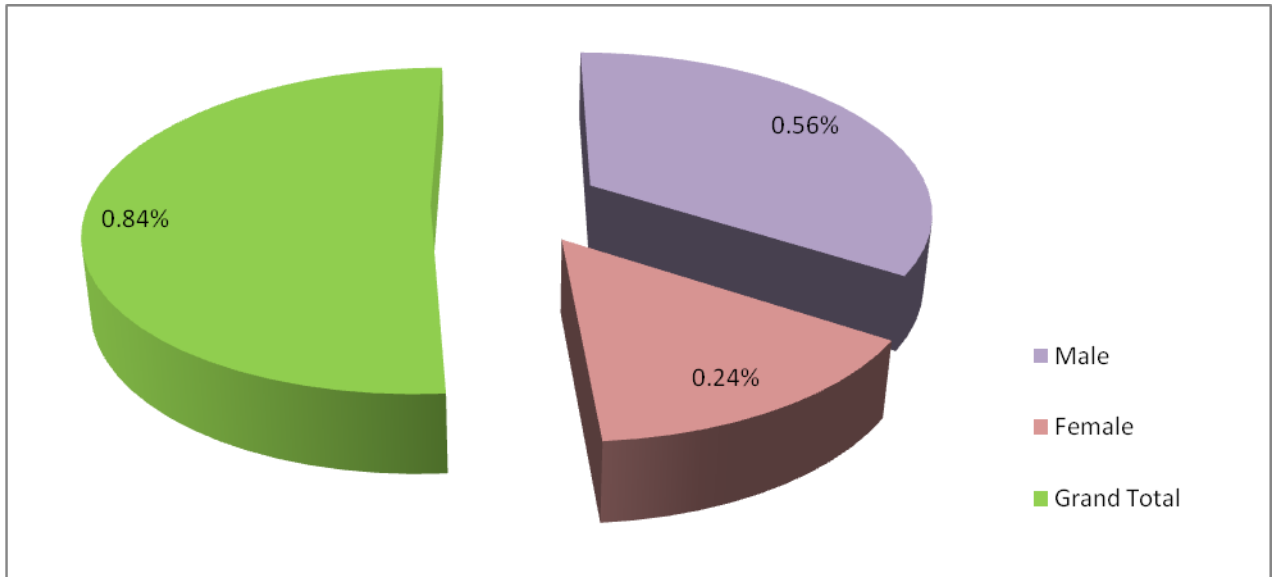


**Fig9:** Prevalence of Spongy bleeding gums in children

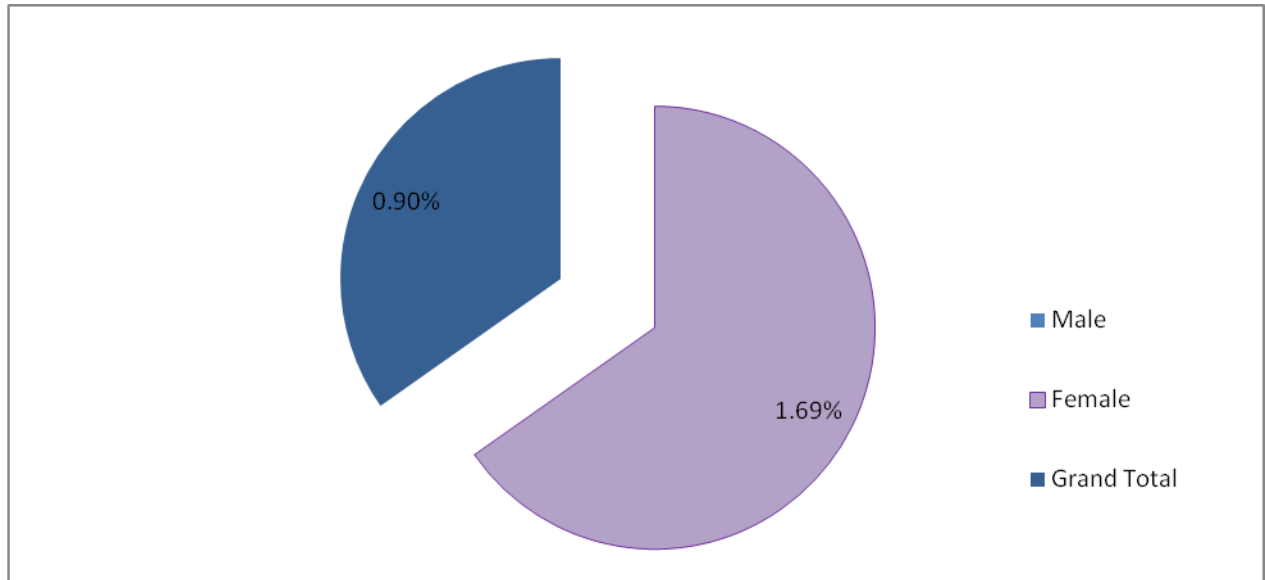




**Fig10:** Prevalence of Angular stomatis in children



**Fig11:** Prevalence of Follicular Hyperkeratosis in children



**Fig12:** Prevalence of Pellagrous Dermatitis in children

### Food consumption pattern

Food consumption pattern depicted in **table no: 6**

**Table 6: Food Consumption Pattern of Selected Mid Day Meal(MDM) Beneficiaries**

S.L No	Food items	No. of Subjects	( % )	S.L No	Food items	No. of Subjects	( % )
<b>Cereals and products</b>				<b>Fruits</b>			
1	Rice	782	100	28	Apple	6	0.76
2	Roti	181	23.14	29	Plum	2	0.25
3	Noodles	35	4.47	30	Mango	35	4.47
4	Bread	144	18.41	31	Pineapple	2	0.25
5	Biscuit	155	19.82	32	Banana	12	1.53
6	Maize	3	0.38	33	Grapes	2	0.25
<b>Pulses and products</b>				34	Papaya	1	0.12

7	Dal	405	51.79	35	Pomegranate	1	0.12
8	Soyabori	11	1.40	36	Watermelon	1	0.12
<b>Vegetables</b>				<b>Fish</b>			
9	Potato	454	58.05	37	Fermented fish	89	11.38
10	Cabbage	323	41.30	38	Fresh fish	65	8.31
11	Squash	119	15.21	39	Dry fish	85	10.87
12	Pumpkin	125	15.98	40	Tinned fish	3	0.38
13	Mushroom	1	0.12	<b>Meat</b>			
14	Brinjal	14	1.79	41	Chicken	50	6.39
15	Bottle gourd	39	4.98	42	Beef	17	2.17
16	Cauliflower	6	0.76	43	Mutton	4	0.51
17	Beans	55	7.03	44	Pork	17	2.17
18	Radish	2	0.25	45	Duck	3	0.38
19	Carrot	11	1.40	46	Dog	1	0.12
20	Tomato	50	6.39	47	Snail	6	0.76
21	GLV	57	7.28	48	Egg	34	4.34
22	Ladies finger	3	0.38	<b>Others</b>			
23	Bamboo shoot	44	5.62	49	Tea	398	50.8
24	Banana stem	22	2.81	50	Milk	100	12.78
25	Ash gourd	8	1.02	51	Snacks	12	1.53
26	Bitter gourd	3	0.38	52	Sweets	11	1.40
27	cucumber	1	0.12	53	Iromba	196	25.06

**Observations are as follows:**

- School children normally follow 3 meal patterns a day.
- Cent percent of the children consumed rice as a main/major meal.
- 23.14 percent of children reported consuming roti followed by 18.41 percent consuming bread and 19.82 percent had biscuit (for breakfast). Less than 1 percent had corn (maize) in their meal.
- 51.79 percent reported consuming pulse (lentil, dry pea, bengal gram, etc) at home.
- Soya nuggets consumption have been reported by 1.40 percent.
- Vegetable consumption reported by the children revealed that 58.05 percent had potato (as a preferred vegetable) followed by cabbage (41.30 percent). Pumpkin and squash are the two vegetables consume by 15.98 and 15.21 percent of the children.
- Seven to five percent of the children reported consuming beans, green leafy vegetables, tomatoes and bamboo shoots at home.
- Vegetables either consumed as boiled or sabji/curry and as local chutney "Iromba" (25.06 percent) and eaten either singly or along with fermented and dry fish.
- Common vegetable preparations include mix vegetable curry of cabbage, potato, pumpkin, bottle gourd. Squash is mostly boiled and eaten. While preparing 'kangchoi', 'iromba' and 'sinju' vegetables used are potato, tomato, colocasia, greens, bamboo shoot, banana stem along with fermented and dry fish and meat.
- Fruits preferred/available are mango, pineapple, plum, banana, apple, papaya, grapes, watermelon. Only 4.47 percent reported consuming mango, followed by 1 percent who had banana. Fruit consumption as such is very meager.
- Cent percent of the children reported to be non vegetarian.
- Fish and meat are the preferred items by children. Most commonly consume fish are fermented and dry fish. Meat consumption is reported occasionally as reported by children which included chicken, pork, beef, mutton, duck, snail.
- Only 4.34 percent of the children reported consuming eggs.
- Tea is the most preferred beverages by 50.80 percent of the children. Milk consumption was reported by 12.78 percent only.
- Out of processed packaged foods magi, noodles, mixtures, chips, are consume by some children 1.53 percent. Only 1.40 percent had consumed sweets.
- Most preferred accompaniment with major meal was Iromba.

## RECOMMENDATIONS

Based on the observations and issues identified, the Review Mission would like to make following recommendations keeping in mind the TOR for the review –

1. To ensure regular implementation of MDM, delay in fund release on the part of State Finance Department needs to be addressed. Many funds released from GOI are found yet to be released by the State Government. Furthermore, it is also found that after the release of funds from the State to the Deputy Commissioner concerned, there is considerable delay in releasing from Districts to Schools. The State Finance Department needs to ensure immediate release of funds as and when received from the GoI. After transferring the funds from State to District, to avoid any sort of delay on the part of the District, it is suggested to transfer the fund through Zonal Education Officers concerned as they are also found to be involved while sending through DC concerned in the present system. The fund flow system from the state to the schools needs to be streamlined along with appropriate monitoring and redressal systems so as to ensure that there is no delay in transfer of cooking costs leading to negative balances in the school MDMS accounts.
2. The State Government should take appropriate measures for regular payment of cook cum helpers.
3. It should be ensured that all the schools have minimum one months buffer stock of food grains for uninterrupted supply of MDMS. Appropriate mechanism should be devised to ensure timely lifting of food grain by the district and delivery of the same to school door steps. Proper arrangements should be made so that the food grains are delivered to the school delivered at the school door steps.
4. It is important that all schools are instructed to display MDM logo and Menu outside walls of kitchen premises as well on any other prominent place in school so that general public is aware of the MDM scheme being implemented in the school.

5. All the schools should be provided kitchen cum stores on urgent basis with proper cooking and storage facilities. Arrangement for kitchen devices should also be made for the schools where it is inadequate.
6. It is recommended that the frequency of the SMC meetings be increased and the implementation of MDM should be made a compulsory agenda during the meeting to ensure the smooth running of the scheme.
7. Inspection is an important component for smooth implementation of the Scheme at the grass root level. Regular inspection should be made mandatory by the State Government by different District and Block level officials. Effective monitoring mechanism should be developed by the State Govt. to ensure periodic inspection of the scheme by officials at all levels. Inspecting Officers should record their observations on the implementation of the Scheme. The PRI or SMC member or any government official can write their remarks/comments about their observations on MDM in school.
8. Provisions of Social and Community Audits should be made by the government to evaluate the implementation of programme and to identify gaps, with the involvement of PRIs and S.M.C members. The process should begin with capacity building of the concerned persons for the purpose.
9. Capacity building of all the stakeholders at every level is required for effective implementation of the MDMS. A module for school teachers on roles and responsibilities of teachers under MDM may be included in the training curriculum of the teachers under SSA highlighting the nutritional and health needs of the children. Training of the MDM in charge and the head masters on record keeping of MDM is necessary.
10. Schools have got large areas that could be used for kitchen gardening. Teachers have reported that due to unavailability of boundary wall they can not develop kitchen garden within their premise. It is therefore recommended that boundary walls may be provided in the schools either from SSA grant or using other Government funds. Roof Rain water

harvesting in schools can also be promoted simultaneously in areas where there is a shortage of drinking water.

11. Convergence with MNREGAS for maintenance of school kitchen gardens could be sought for all schools across the state. Kitchen gardens or green squares can be introduced using the waste water from kitchen and hand washing of children. This can become innovative and creative school based activity for the participation of children and teachers to grow drumstick trees and seasonal greens for use in MDM. The nutrition education then can be one of the major activities for children and use of vegetables in MDM can also be ensured. In the senior classes students can also given the responsibility of managing the kitchen garden.
12. In view of the high prevalence of fire wood chulhas as a mode of cooking in the rural areas action may be initiated to provide environment eco-friendly smokeless chulhas in convergence with the concerned department in the State
13. It is observed that each of the State/UT is following some best practices in the implementation of MDM. In this connection, it is recommended that the inter-State exposure visits can be conducted for MDM implementing officials for better implementation of the scheme.
14. A book of low cost nutritious recipes be developed keeping the profiles of different regions of the state in mind to ensure standardised intake of cereals, pulses and other food groups. To facilitate scaling up of the recipes a ready reckoner for cooking in varying quantities be developed.
15. In anticipation of separate establishment to be set up for Mid-Day Meal at the district level, required number of man and machinery will be put in place. This is essential because if the planning has to be done from District, then as already practised by SSA and RMSA with their staffs to assist the District Officer, likewise, MDM also has to engage separate staffs right from the State to District to Inspectorate level. Hence, certain amount has to be earmarked for their wages.

16. Certain amount may be earmarked from the MME fund for procurement of large containers for storing food grains in schools so that rats and other insects may not spoil the food grains.
17. Providing effective water filters in all the schools especially in rural areas.
18. Introduce and promote healthy competition amongst the implementers of MDM mainly School Authority and Inspectors of schools by declaring award in the form of cash/kind.
19. First Aid Box may be provided in all the MDM implementing schools.
20. Convergence of NRHM with MDMS for proper implementation of School Health Programme is required urgently and essentially. Special emphasis should be given on this aspect.
21. No record is maintained of the vegetables, pulses, soyabean, egg, oil, salt purchased which is always less than the reported value. It should be recorded properly.

#### Recommendations on health, hygiene and sanitation

1. Good hygiene is an important barrier to many infectious diseases and it promotes better health well being. To achieve the greatest health benefits, improvements in hygiene should be made concurrently with improvement in the water supply and sanitation.
2. Short documentary may be developed on health and hygiene and activities related to these aspect and which may be sent to all schools through CDs to be shown to the children and guardians as part of campaign.
3. Proper hand washing is one of the most effective ways of preventing the spread of diarrhoeal diseases. Soap should be used for hand wash as cleansing and disinfecting agents. When running water is not there a clean bucket of water and a mug should be used and washing should be facilitated by a worker/student.
4. Detergents should be used for cleaning utensils to kill the pathogens.
5. Promoting good personal hygiene often requires that community workers are mobilized towards this goal and awareness is raised through various programmes.
6. Regular bathing and using washed/clean clothes are important for cleanliness and good personal hygiene and appearance.



7. Bathing with soap is an important means of preventing the transition of trachoma- an illness that can cause blindness and other eyesight problems.
8. Food hygiene should be maintained by avoiding contaminated food/raw ingredients. Food should be cooked in clean utensils with clean water and in a clean environment cooked food should be kept covered and serve to the students in a hygienic condition.
9. The staff involved in food preparation should maintain good personal hygiene. They should use clean head gear and apron.
10. In the absence of dining hall facilities, wherever classroom/verandas are in use for dining, proper cleanliness to be maintained.

#### Recommendations on diet-

1. Dietary quality needs to be improved to a great extent both in terms of quality and quantity. Amount of pulses for protein and vegetables for important vitamins and minerals should be increased which at present is below the RDA. Serving size is highly approximate. All head teachers/concerned MDM teacher should be asked to get cooked one unit of rice (100 g or 150 g) and one unit of sabji in school. They should measure the cooked amount in one vessel/serving device. This measure should be used to serve food as per norms.
2. Measures to weigh raw amount of food should be provided in the schools.
3. Incorporation of green leafy vegetables in MDM should be given importance, since green leafy vegetables are treasure house of many essential minerals and vitamins.
4. Promotion of nutrition garden in the school premises can be taken up for incorporation of vegetables in the MDM.
5. Consumption of local fruits should also be encouraged.
6. Nutrition education programmes for students, parents and teachers should be arranged on regular basis.

7. Some schools have developed good dinning areas/ halls. Others make children sit in the class room or sit in the verandah or in open air. In these schools some better sitting arrangements should be made.

A Compliance Report/ Action Taken Report on the above recommendations may be sent to the Government of India within three months from today.

Dr. Pranati Das, Principal Scientist, Assam Agricultural University,  
Jorhat, Assam- Team Leader

Director, Education/ representative of Govt. of Manipur –

Shri V.K. Nayyar, Under Secretary, MHRD, Government of India

Dr. Ruma Bhattacharyya, Professor, Dept. of Food & Nutrition, AAU, Jorhat-

Ms. Grace Jajo- Representative of Office of Supreme Court Commissioner –

Dr. L. Leiren Singh, Head, Deptt of Education, Manipur University (MI)-

**Date: 31<sup>st</sup> August, 2013**

**Place: Imphal, Manipur**